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In This Issue

RECENT DEVELOPMENTS IN WORLD LEAD AND ZINC MARKETS
By R. HENDRICKS, Executive Vice President
Consolidated Mining and Smelting Co. of Canada, Ltd.

BRITISH METAL MARKETS
By L. H. TARRING
London, England

DOMESTIC METAL MARKET REVIEW

WASHINGTON REPORT

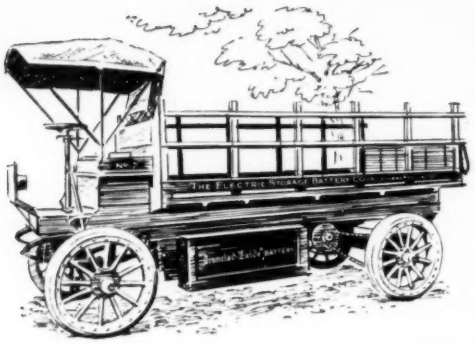
METAL STATISTICS

APRIL
1960

LEAD

Sparks A

RENAISSANCE



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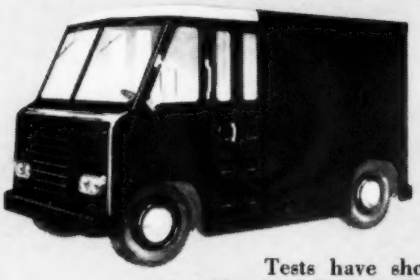

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TWO LINE *Editorials*

In Cuba a "free press" means a press that is free to print anything that is agreeable to Castro.

* * *

Paris police have ordered taxicab drivers to refrain from "Rudeness, obscene language or brutality to passengers." Our big city police would never think of attempting any such abridgement of the cabdrivers' rights.

* * *

A TV promoter suggests a program where every satisfied viewer sends the station a dollar. A better plan would be for the station to send a dollar to every dissatisfied viewer — if there's that much money in the world.

* * *

Officers of the Marine Corps have been ordered to stop carrying swagger sticks; even without the sticks, they will doubtless be able to swagger just as much as ever.

* * *

A fire-arms manufacturer is offering revolvers "in lovely pastel shades" for ladies' use. Somehow this seems to be just a natural development parallel with the coming of the "clean" atomic bomb.

* * *

A ship's doctor asserts that tourists always weigh more on the return trip from Europe. Well, isn't travel supposed to broaden one?

BUSINESS IN MOTION

To our Colleagues in American Business ...

Of more than the usual interest is the following example of how Revere, a supplier, working with still another supplier, was able to help the ultimate customer produce a superior product for less money.

A manufacturer of automotive thermostats was having difficulty in securing the proper kind of copper cup which is the heart of its newest stat. Originally this cup was machined from free cutting copper rod, but this proved costly due to the high rate of scrap from the machining operation and the relatively high cost of turning out the machined part.

At this point Revere Technical Advisors got together with the engineers of the manufacturer and the possibility of an impact extrusion was discussed. Revere T.A.s in turn contacted suppliers of impact extrusions to see whether or not such extrusions, in copper, could be produced economically and to the demanding specifications required. After testing many types of copper rod it was found that the cups could be impact extruded to meet the exacting hardness required by the specifications.

The impact extruded cups were tested and re-tested in comparison with the machined cups. Many problems involving temper, grain size and control of the chemical composition of the copper rod for impact extrusions had to be solved.

Finally, after repeated tests of samples it was revealed that copper cups extruded from a specific type of copper rod recommended by Revere, were superior from a standpoint of both quality and price.

During the months of development, Revere personnel, on the one hand were working with prospective suppliers of the copper cup and on the other hand coordinating the overall effort with the engineering and purchasing departments of the manufacturer. This, of course, kept them abreast of developments by assisting with the preparation of a material specification that would assure a quality product.

In addition to the Copper Cup, Revere also supplies 70/30 Brass Strip from which other parts of the thermostat are fabricated.

Said the purchasing agent, "When you ask Revere for help you get results. They are so well organized all over the country that they can really do something for you. That's why, through their help on our special type thermostat, we are able to say that it is the most accurate and trouble-free stat ever designed to operate in pressurized cooling systems. The stat will perform accurately and efficiently against high pump pressure and is not affected by action of the pressure cap."

This is still another case of how Revere, a supplier, working with still another supplier, was able to help its customer produce a superior product for less money. And, because practically every industry you can name is able to cite similar instances, we suggest that no matter what your suppliers ship you, it would be a good idea to take them into your confidence.

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Washington Report

April 15, 1960

PROPONENTS of increased assistance to the domestic lead and zinc industries lost out by a split decision at the Tariff Commission during the month but the fight definitely will go on. Four members of the six-member Tariff Commission refused in a report to Congress to make any recommendations as to what additional import restrictions, if any, are needed on lead and zinc on the grounds that the Commission was not authorized to do so. Dissenting, a minority of two members maintained that the commission could make recommendations and urged the removal of import quotas and the substitution of higher import duties for both metals.

The request for lead and zinc recommendations had been made by the Senate Finance Committee under a section of the Tariff Act of 1930. The majority of the commission said the section (332) was not intended to provide recommendations by the Congress which wrote it. A similar decision had been issued February 29 by the Tariff Commission in the case of fluorspar. At that time the vote was three-to-two with one member not participating.

The Tariff Commission majority noted that it must report to the President by October 1, 1960, on developments in the trade of lead and zinc. If it finds then that less restrictive customs treatment might be applied without serious injury to the domestic industry, it will institute another investigation.

Minority Asks Duty Rise

Stating that "there can be no reasonable doubt" as to whether the domestic lead and zinc industries are in a depressed condition and in need of assistance, the two minority members urged that the duty on lead ores be raised from .75 cents per pound of lead content to 2.1 cents and the duty on pigs and bars be raised from 1.0625 cents to 3 cents. For zinc ores they recommend the duty of .6 cents be raised to 1.75 cents and for slab zinc from .7 cents to 2.5 cents.

The commission majority consisted of chairman Joseph Talbot, vice chairman J. Allen Overton, Jr., William E. Dowling and J. Weldon Jones. In the minority were Walter R. Schreiber and Glenn W. Sutton.

In the majority report, the members called attention to the Feb. 29 statement on fluorspar. At that time Commissioners Talbot, Overton and Dowling said they were convinced beyond any doubt that Congress deliberately avoiding giving the Commission the functions and duties of making recommendations to the Congress regarding the need for import restrictions.

The minority members, conceding that the commission historically has not included in reports such data as specifically requested by the Senate last year in its Resolution 162, namely, the tariff treatment of imports necessary to place domestic lead and zinc mining operations "on a sound and stable basis," said that, in their opinion, no section of any law forbids the commission to furnish such information.

Decision Up to Senate

"The Senate is free to disregard entirely the information that we supply or to attach as much weight to it as is chooses," the minority said. "Any change in tariff policy applicable to imports of lead and zinc articles will be formulated and adopted by the Congress—not the Tariff Commission."

The majority called attention to the fact that, unlike fluorspar, unmanufactured lead and zinc has been the subject of an escape clause investigation by the Tariff Commission which resulted in the modification of the U. S. customs treatment under the General Agreement on Tariff and Trade by Presidential proclamation, and that this modification is subject to review by the commission.

The Executive Order (10401) provided that whenever in the judgment of the commission conditions of competition between imported and domestic lead and zinc have so changed as to indicate that less restrictive customs treatment of lead and zinc might be applied without serious injury to the domestic industry, the Commission must make an investigation including a heading and report to the President what, if any less restrictive treatment is warranted.

Forecast Consumption Rise

Discussing market trends, the Commission said that in view of the anticipated increase in automobile production in 1960 over 1959, and the resumption of activity by the steel mills, consumption of both lead and zinc may increase appreciably in 1960 over the 1959 level.

The commission also noted the anticipation that consumption of slab zinc for galvanizing will be considerably higher in 1960 than in 1959. The zinc industry, the commission added, also expected the market for rolled zinc to be improved by the recent introduction of a new alloy which includes small amounts of titanium and copper.

Increased lead use was forecast with greater industrial activity and growth in motor vehicle transportation.

The Commission also pointed to the fact that research for new uses of lead and zinc is being conducted jointly by the Lead Industries Association and the American Zinc Institute. with funds provided, on the basis of production, by companies in the United States, Latin America, Canada, Australia and Southwest Africa. Research expenditures on uses of the two metals are expected to amount to $1,500,000 in 1960.

Tariff Measure Offered

Shortly after the report was issued by the Tariff Commission, Rep. Howard H. Baker (Rep., Tenn.) offered a bill (H.R. 11584) to implement the minority recommendation for higher duties on lead and zinc. The bill was referred to the Ways and Means Committee. No hearings were slated.

Subsidy Legislation

Also pending for Congressional consideration are measures to provide stabilization payments to small domestic lead and zinc producers. Opposition to such legislation was registered by spokesmen for the various Government agencies concerned at headings held by the House Interior Committee.

Generally speaking, the measures under consideration provide payments designed to give producers the equivalent of 17 cents a pound for lead at

(Continued on Page 16)

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Recent Developments in

World Lead and Zinc Markets

By R. HENDRICKS, Executive Vice President,
The Consolidated Mining and Smelting Company of Canada, Ltd.

I AM PLEASED to have the opportunity of addressing you today on "Recent Developments in World Lead and Zinc Markets" because I believe that marketing constitutes the critical segment of our business. I should perhaps warn you that while I shall give you some statistical and other information on lead and zinc consumption, the primary theme of my talk is international cooperation. However, I hope that before I finish you will all agree with me that international cooperation has a great deal to do with market development and that it is a subject of major concern to us all.

The ores of lead and zinc are unevenly distributed throughout the world and all countries are not equally well supplied with their own mines. Some countries, such as Africa, Australia and Canada, have resources in high grade ore which allow production of much more than they can use. Others, such as Great Britain, India, Japan and the United States, are unable to provide for their consumption from domestic ores and so are compelled to import. Consequently, there is much traffic in lead and zinc in various forms from one country to another and there is every expectation that this will increase. International trade is thus an integral part of the lead-zinc industry, and international cooperation is essential for its well-being. This latter fact is receiving growing recognition and I submit that the most important single international development in the industry in recent years is the increase in cooperation that has been brought about. This is not something that comes automatically. It has had to be initiated, and to be maintained and extended by deliberate action. All of us can make some contribution in this direction. Let me remind you of some of the ways in which increased cooperation is being translated into effective action.

Technical Level Exchange

For many years there has been considerable freedom between producers to exchange technical information relating to methods of mining, concentrating, smelting and refining. This is good, and it was encouraging to hear recently that the Russians may open their lead and zinc mines and smelters to visitors from certain Western countries on a reciprocal basis. I believe that such exchange on the technical level is beneficial not only for the direct results but also in a broader sense. I hope that all of us will do what we can to encourage this sort of thing.

We have just heard from Mr. Nichols about the International Lead-Zinc Study Group organized under United Nations' sponsorship. May I add that I have heard at first hand from delegates to these United Nations' meetings that a growing sense of mutual confidence and a resulting willingness to cooperate in creating a healthy lead-zinc industry have been clearly in evidence. Mr. Nichols mentioned the important matter of statistics where specific progress is being shown. Complete and accurate statistics can be of great help to everyone in the industry but they can only be assembled as the individuals concerned supply suitable information. I think we should all give this matter serious consideration and, as far as possible, contribute what is requested both as to matter and form.

Zinc Over-Supply Wanes

Mr. Nichols also explained how, at the United Nations' conference held in New York about a year ago, steps were taken to set up the Study Group to which I have just referred. At the same conference in New York there was frank discussion of the difficulties facing the industry because of the over-supply situation and you also know how individual producers recognized the problem and made various adjustments to deal with it. The benefits of the resulting action to both producers and consumers are now apparent to all and it will suffice for me to point out that at the recent Geneva meetings of the Study Group it was recognized that the problem has been resolved with the zinc market now in an approximately balanced supply-demand position. Improvement was also seen in the lead situation but some over-supply was still in evidence, requiring attention for a time.

It is clear that the Study Group has amply demonstrated its value and I hope that it will continue on a permanent basis. It seems to me that such an international group could provide a continuing forum for the discussion of major industry problems which have international implications. It is also in an excellent position to set up committees which could investigate and report on matters of mutual concern. Unbiased, factual reports thus provided could be the basis for recommendations to governments for appropriate action. One area for such study might be the effects on the lead-zinc industry of governmental restrictions and other legislative action regulating international trade.

A. Z. I., Z. D. A., Etc.

Another area of increasing international cooperation that I should like to discuss is in the trade associations, of which I can mention only one or two. The American Zinc Institute itself now has many associate members representing an important part of the industry outside the United States. Associate membership allows full participation and representation on the Industry Development Committee and pertinent subcommittees, an arrangement which in my experience is entirely satisfactory. In the other direction, I think of the Zinc Development Association, whose headquarters are in London, England. This Association formerly obtained its support from the United Kingdom, Australia and Canada, and was mainly concerned with promoting the use of zinc within the United Kingdom, although its literature was also circulated in Australia and Canada. Recently the interests of the Association have been extended to Europe and now there are a number of parallel cooperating associations in various European countries. Still more recently a number of companies in the United States have been contributing to the support of the Associa-

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tion and participating directly in its activities.

European Associations

The Zinc Development Association includes a number of committees working in specified fields in the United Kingdom and aimed at furthering particular uses of zinc. There are also affiliated groups, such as the Zinc Pigment Development Association which is planning a cooperative research program on zinc oxide and lithopone in emulsion paints. Other groups concern themselves with rolled zinc, hot dip galvanizing, analytical techniques and other fields. Among the cooperating European committees, I might mention the European Zinc Producers' Technical Committee which, at this time, is having a meeting in London to which supporters from all over the world were invited. Also, the European Pressure Die Casting Committee has an international conference scheduled to be held in Stresa, Italy, next month. The previous conference in this series held in Paris in 1957 attracted over 300 delegates from 15 countries, and that to be held next month is expected to be even wider in its interest. I was pleased to learn that over 70 delegates are expected from the United States, including official teams from the American Die Casting Institute and the American Society for Die Casting Engineers. Representatives from Canada will also be attending. Similarly, the European General Galvanizers Association is planning an international conference on galvanizing to be held at Interlaken, Switzerland, in 1961.

From Local to Global

More could be said on this subject but I give these as examples of how trade associations, originally relatively local in interest, have, during the last few years, been used as a means of international cooperation to develop the use of lead and zinc throughout the world. I hope that as individuals, and in our own particular trade associations we will extend cooperation of this type. I am confident any such action would work out to the mutual advantage of all concerned.

Another very encouraging evidence of cooperation is in our own AZI and LIA Expanded Research Program. Yesterday Dr. Radtke reported the work on lead and later today he will review that on zinc. I do not wish to duplicate his reports but I think it is worth remembering that the sponsors of this Program comprise 24 producing companies representing about half of the world's mine production of lead and zinc from three continents. I understand that other companies not now participating are anxious to join us in this work. I am sure that any such who are active in the lead-zinc industry would be welcomed by the present sponsors. It is also worthy of note that the actual research work sponsored under the Program is being carried out wherever the situation is favorable, regardless of international boundaries. It is most heartening that this fine level of cooperation has been achieved, and I believe that you will agree with me that the results augur well for the future.

On the Research Front

However, if the industry is to enjoy the full benefits from the research work which we are supporting financially, there are a number of things which we can and should do. The responsibility of producers and fabricators is not ended until research results are translated into commercial products and sold in the markets of the world. We must keep in close touch with the research programs and exploit the results in our own operations and products as may be applicable. We must see that our engineers and technical people are constantly aware of their responsibility to evaluate and apply research findings in this way. In the research and development effort of our individual companies we must plan programs which will coordinate with the Expanded Program and further the consumption of lead and zinc.

Plastics Against Zinc

While there is ground for encouragement in our research work, there is no room for complacency or thinking that we can reduce our efforts. Competition is extremely active and is coming from directions not thought of two or three decades ago. Let me mention just two examples to illustrate what I have in mind. After 12 years of research and development at a reported cost of $6 million, Du Pont Company now has under construction a plan to manufacture "Dycril." This is a new plastic printing plate material which will compete with zinc in lithography and photoengraving. Another plastic developed by Du Pont, "Delrin," is threatening zinc in die casting. Delrin is a product of 10 years of research and development, reportedly costing $42 million. To meet this sort of competition will take our best united efforts if zinc and lead are to have the place we want for them in the markets of the world. Although we are off to a good start, it is obvious that our research program must be greatly expanded and backed up by the whole-hearted cooperation of all participating companies.

At this point I must become more specific and attempt to give you a factual picture of the consumption of lead and zinc in the various parts of the world together with indications of the prospects for growth. In the present discussion, references are to the Free World because we do not have reliable statistics from the Soviet Bloc. However, metal from this area is appearing in Free World markets and we must keep these countries in mind and hope that in due course information from them will become available.

World vs. U. S. Picture

According to preliminary estimates, world consumption of both zinc and lead improved in 1959, reaching levels appreciably above those in 1958 and practically regaining the previous peaks in consumption reported in 1955. Had it not been for the steel strike in the United States, world consumption of zinc would certainly have been the highest on record. With further improvement forecast for both metals in 1960, the tide appears to have turned and world consumption of both metals to be moving upward again, though at a relatively slow rate unless we can achieve a break-through by new developments.

While the world picture is somewhat encouraging, that here in the United States is far otherwise. Although zinc consumption at 934,000 tons in 1959 was considerably above that in 1958, it was no higher than in 1957 and appreciably less than in a number of earlier years. Since it had been hoped that consumption would reach at least 1 million tons in 1959, the actual achievement is certainly disappointing. It is true that one important reason was the steel strike, a factor beyond our control, and with this settled the Department of Commerce now suggests about 1,100,000 tons consumption in 1960. This would be an improvement but it would still not reach the level of 1955. We thus have to face the disturbing situation that while the general industrial activity of the United States is advancing and while many other countries are increasing their consumption of zinc, here, in the world's most important single market, ground is being lost. It is evident that we must continue to seek methods of increasing the consumption of zinc, recapturing,

if possible, any uses that may have slipped away too easily, and strengthening present uses which may be threatened. In this connection the importance of maintaining a stable price that is competitive in all aspects with other materials can not be stressed too often.

The Brighter Side

Having given you the dark side of things I should mention some bright spots. It is encouraging to see the increased demand for galvanized products. Some aspects of this industry will be discussed by Mr. Jennings later today. Meanwhile, may I say that I foresee a tremendous potential for galvanized products if we can ensure the quality of material and actively encourage its use wherever properly applicable. The zinc die casting industry is a classic example of cooperation in action. The success which this industry has achieved in offsetting further inroads by new materials is noteworthy, but, as I have already indicated, the job is not finished. It never will be. While the industries mentioned constitute the bulk of zinc slab consumption in the United States, we must not neglect the numerous small uses of zinc which make up the balance, for I think it is generally true that existing uses can be maintained and expanded with much less difficulty than is required to develop a new use.

Many of my remarks concerning zinc apply equally to lead. In 1959, the United States consumption of lead at 1,083,000 tons represented an increase of about 100,000 tons over 1958, but this was only a return to the same level as in 1943 and was still considerably below that in 1950. If we allow past conditions to continue we thus have no basis for expecting significant improvements in the future.

No doubt we can adduce various reasons which account for the declining use of lead, but in so doing we merely point out instances where competitive materials have taken over our markets. The situation challenges all of us to support an aggressive program of research and development in order to protect the markets we have and develop new ones.

Canadian Counterpart

After these critical remarks regarding consumption in the United States, I must hasten to add that we are in little, if any, better situation in Canada. Zinc consumption at 68,000 tons in 1959, though higher than for several years, was well below that in 1942 and 1943. Even so, 1959 is considered to represent an inflated demand due to the steel strike in the United States. Galvanizing is the most encouraging specific use of zinc in Canada but die casting, brass and others are relatively disappointing. Primary lead consumption at about 45,000 tons in 1959 was below that in 1955. As elsewhere, decreases in the use of lead in cable sheathing and pigments were marked. Canada is thus another country which needs aggressive research and we hope that the results of the Expanded Program and individual activities will lead to a real increase, not only as population increases, but in consumption per capita.

Europe Zinc Use Growth

The total consumption of zinc in Europe has shown almost uninterrupted growth since 1954, and since 1958 it has exceeded that in North America. Germany, France and the United Kingdom together account for almost 70 per cent of the European total and 30 per cent of the world total. One of the most promising uses for zinc in Europe is in galvanizing. There are now four continuous strip lines in the United Kingdom, all working at capacity, five in France, two in Belgium with a third under construction, and three in other countries.

Galvanized sheet is being used in some automobiles and galvanized structural steel is finding continously wider use for buildings and other purposes. Zinc spraying is also making good progress with more than 1000 tons expected to be used on the new Forth bridge in Scotland. Zinc die casting in Europe has never experienced the same growth as in the United States. On the other hand, in spite of much dissatisfaction with plated products there was not a marked trend away from them. The average British car now uses about 50 pounds of die casting and with the results of recent research available, it is felt that this application is secure for the present. On the Continent, however, much less zinc is used in cars, and it has been reported that in France automobile manufacturers are turning to plastics because of what they term the present high cost of zinc.

Europe Lead, Australia Zinc

In Europe the decline in lead consumption during the last few years now appears to have been wiped out and the estimated 1959 total is up to that for 1955. Germany and France show the most encouraging growth at present, but consumption in the United Kingdom also improved last year although the outlook for 1960 is not considered too good. Our friends in the Lead Development Association, while active in various projects of their own, have particularly asked me to stress the importance that they place on the Expanded Research Program and to assure you of their desire to co-operate in any way they can.

Turning to Australia and New Zealand, zinc consumption has generally been better maintained in recent years than in many other countries, and preliminary estimates are that 1959 consumption will about equal the former peak of 1957. As elsewhere, galvanizing is of major importance but die casting is also showing good growth. Lead consumption, on the other hand, has not been doing so well and in 1959 was apparently less than in any year since 1954. This is in spite of the fact that in these countries lead still has an important place in the cable sheathing industry. One remarkable point about Australia and New Zealand is the high per capita consumption of both lead and zinc. In this respect they are well above the United States and far ahead of Canada, a country of roughly comparable population.

Japan Leads Asia

Let us now take a quick look at Asia where Japan is the outstanding country as far as our present interests are concerned. As a result of aid from the United States coupled with vigorous local activity, the economy has shown remarkable recovery and continuing growth. In zinc consumption there has been uninterrupted increase for at least 8 years. The consumption for 1959 is estimated to be close to 170,000 tons, nearly 2½ times that in 1951. A number of continuous galvanizing lines are now in operation in Japan and in 1958 the zinc consumption in galvanized sheet alone was over 76,000 tons. This may be compared with less than 20,000 tons, ten years previously. Die casting has also developed strongly and in 1958 accounted for 10,000 tons of zinc. With further growth expected in automobile manufacturing, the die casting industry should continue its progress. Lead consumption in Japan has not been so satisfactory. Although in 1959 consumption reached 75,000 tons, a 12 per cent increase over 1958, it was still more than 20 per cent below that in 1957. Again the main loss was in cable sheathing, although consumption in other uses also declined. It may be expected that

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the growing automobile industry will strengthen the demand for lead.

I have reviewed some of the encouraging signs of increasing cooperation and I have discussed some features of consumption in specific areas, all of which should impress upon us the international character of the lead-zinc industry. It has been stated on good authority that international trade is now generally freer of restrictions than at any time in the last 30 years. This is good, but unfortunately, and particularly as affecting lead and zinc, there are areas where artificial barriers have recently been set up and where various political situations are still a serious hindrance to trade. I would be remiss if I did not point out some of these and urge that we approach our individual problems in a more broad-minded and cooperative attitude.

Price of Government Help

First I want to urge that as a general principle industry should try to solve its own economic problems rather than appeal to governments for help. If we, as producers, could get together on an international basis and frankly exchange ideas and discuss the broad industry problems, I believe we would find that many of our ultimate objectives coincide, and that we could work out ways of dealing with our own problems. I recognize the responsibilities of government to take care of national welfare and the authority of government to regulate industry accordingly, but I believe that all of us in industry have a tendency to appeal for government aid unnecessarily. When cyclical situations of over-supply arise due to decreased demand, lead and zinc mines and smelters throughout the world inevitably suffer hardships and individual countries can not insulate themselves by government action. What is needed is to take steps that will reduce or eliminate these periods of low demand by keeping consumption buoyant and growing. Experience in recent years indicates that the various interferences of governments have tended to aggravate the cyclical swings and added generally to the problems of the whole industry. Further, government aid inevitably means government regulation and, in the long run, this leads to government control of industry.

U. S. Import Quotas

Coming closer to home, we still have quotas restricting imports of lead and zinc into the United States. These were established in October 1958 and recent reports indicate that the Administration and Congress have no present intention of removing them. This is so in spite of the many objections that have been raised. For example, last August six major United States lead and zinc smelting companies, representing about one-half of the smelting and refining capacity, issued a statement opposing the quota system. In recent hearings before the United States Tariff Commission domestic smelters testified that a continuation of the quotas is a serious threat to the future of the lead and zinc industry. Our Canadian Government and that of Australia have repeatedly urged their elimination. At the recent meetings of the United Nations' Study Group held in Geneva, delegations voiced concern over the continuation of the quotas and particularly that these restrictions, originally stated to be temporary, might become permanent. It was pointed out that lasting damage might result if such restrictions caused consuming industries to use alternative materials.

Another point where cooperation is needed is in connection with Government stockpiles of lead and zinc. As you know, the United Kingdom stocks of zinc, amounting to about 53,000 long tons, are to be disposed of during the next four years. Intentions in this regard were announced at the United Nations' Study Group meetings and views of other participants were invited. This approach and the assurance that disposal would have due regard for market conditions are commendable. In view of the relatively small quantity involved, we may hope that its disposal will not depress markets to any extent and it will be good to have the problem out of the way.

Government Stockpile Disposal

The stockpiles in the United States are, of course, many times larger than those in the United Kingdom. Indeed, the quantities are so great that unwise disposal could disrupt the world industry. They therefore can not be considered from a purely domestic point of view. This is shown by the fact that during the period around 1956 when stockpiling was at its height, about 10 per cent of the total production of the Free World was being withdrawn from the market. When purchases were abruptly curtailed in 1957, prices deteriorated rapidly and the industry became depressed, a condition from which it is only now recovering. Stockpiles of lead and zinc may be necessary for strategic purposes to meet possible national emergencies, but if so they should not be released except as necessary for this purpose. Certainly any precipitate action to dispose of the United States Government stocks at this time could have extremely serious effects on the industry. I urge that no further major additions be made to these stockpiles of lead and zinc and particularly that if any future emergency should necessitate release of metal, consultation should first be held with industry on as wide a basis as possible.

Consumer Care

Finally, I want to make a plea for the consumer. For too long industry and governments alike have overlooked the importance of consumers. At the various meetings and hearings when the needs and claims of different interests are presented and action is urged for their safe-guarding, seldom does anyone represent consumers or put in a claim for them. I suggest that it is time that this omission was rectified, for our own well-being if for no other reason. After all, the major task facing our industry is to stabilize and increase world consumption of lead and zinc and this will need careful attention to the interests of consumers.

One of the prime requirements will be to see that adequate supplies of good quality metal are available at reasonable prices. Producers must keep the supply of metal coming out in line with market requirements, in poor times as well as good. We must do our best to maintain reasonable and stable prices and these can not be considered solely on the basis of local costs. Competition must be recognized, particularly from alternative materials. Unduly high prices may give temporary benefit but experience has shown that in the long run they are detrimental to marketing. On the other hand, very low prices, insufficient to maintain a satisfactory level of world production and good quality, are also harmful.

Progressive Cooperation

Similarly, high tariffs, quotas and other such restrictions, though they protect high domestic prices, fail to give adequate consideration to the interests of consumers. Further, such restrictions place manufacturers of products containing large amounts of lead and zinc at a disadvantage when competing with foreign manufacturers. They thus hinder exports and increase the difficulty of balancing international payments. Imbalance of trade is currently causing concern in the United States, and it is also a cause of great concern to us in Canada. I believe that the long-range remedy lies in increasing productive

(Continued on Page 16)

AFRICAN RIOTS CAUSE NERVOUSNESS AMONG COPPER BUYERS IN EUROPE; LME STOCKS DIP TO LOW LEVEL

Consumer Demand for Tin Generally at Good Rate With Occasional Tightness In Spot Supply; Lead Prices May Move Higher; Better Showing Made by Zinc

April 8, 1960

IT HAS BEEN interesting to note that while during March copper prices on Comex moved downwards, which was more or less in accordance with earlier expectations, those on the London Metal Exchange have, on balance, actually shown some improvement.

This would seem to be ascribable, in part, to the fact that grievous events in South Africa have cast something of a shadow over the whole African continent and engendered a certain amount of nervousness among buyers in Europe—who are quite heavily dependent on African metal. This, if it has done no more, has certainly discouraged any bearish activities. Another important factor on the London market has been, of course, the further dwindling of stocks in official London Metal Exchange warehouses. These have now been reduced to the dangerously low level of less than 2,000 tons, and with so little "ammunition" available

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there is a further strong reason for avoiding short selling.

It also would appear that while consumption outside the United States is undoubtedly running at a high level, demand inside America has not quite matched up to expectations. In the U. K., fabricators generally are very busy although there is, perhaps, still some room for improvement in the wire trade to bring it up to the best levels in recent years.

Rhodesian Meeting

In March, the periodic meeting of the International Wrought Non-Ferrous Metals Council was held at the invitation of Rhodesian producers in Salisbury, Southern Rhodesia, and fabricators' representatives were told by Sir Ronald Prain, chairman of Rhodesian Selection Trust, that Europe is currently buying nearly 2 million tons of copper a year—or more than half the world's total consumption. He said that the growth in Europe had been the outstanding feature of the post war years. Moreover, half of Europe's requirements were currently drawn from Africa.

Sir Ronald also took the occasion to stress to the consumers that the request for stability in the copper market was nowhere more urgent than in the mining industries of Rhodesia, the Belgian Congo and Chile. He referred to this matter again at the informal meeting of shareholders of the Rhodesian Selection Trust Group of companies in London on April 7 when he said that they hoped that fabricators "were satisfied as to the long term nature of the Central African copper mining industry, and perhaps will now have a better appreciation of the size of these industries. We hope that they will thus be able to appreciate more the reason why the copper mining industry is constantly striving to ensure the stability of the copper market to avoid not only financial and market disturbances, but also the social implications which follow severe fluctuations and which can be disastrous to such under-developed countries relying on the fortunes of one industry."

R. S. T.'s Activities

With regard to R. S. T.'s activities, Sir Ronald said that construction work had continued without interruption on all properties and good progress had been made on the development schemes at Mufulira West and Chibuluma West. The former is scheduled to come into production in 1962 and will increase production of the mine by about 50 per cent and the latter should add about 4,000 tons to Chibuluma's output in 1964, thus raising the present productive capacity of the company's three mines from 210,000 tons to about 260,000 tons.

ITC Meeting

The main feature of interest in connection with tin during the past month was, of course, the meeting of the International Tin Council in London at which it was decided to raise export quotas for the second quarter from 36,000 tons to 37,500 tons. It was explained that this increase was decided upon after taking into account the provisions of the Interna-

U. K. COPPER STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics U. K. production of refined copper during January again showed a decline at 6,687 tons of primary (7,800 tons) and 8,455 tons of secondary (9,134 tons). Stocks of refined copper rose by 5,919 tons in January to 49,875 tons (43,956 tons) and blister also showed a gain of 11,213 tons compared with 11,049 tons a month earlier. Consumers held 23,976 tons of the refined stock against 22,514 tons in December. Consumption during January showed some decline at 57,316 tons compared with the previous month's figure of 59,246 tons. Details are given below:

Copper Products	1959 Jan.	1960 Jan.
Unalloyed		
Wire*	20,644	21,149
Rods, bars and sections	1,706	1,463
Sheet, strip and plate	4,353	4,850
Tubes	5,325	5,776
Castings and miscellaneous	650	650
Alloyed Copper Products		
Wire	1,450	1,832
Rods, bars and sections	10,868	13,149
Sheet, strip and plate	8,285	10,209
Tubes	1,926	1,709
Castings and miscellaneous	6,110	7,111
Copper sulphate	3,523	1,664
Total all products	64,840	69,562
Copper content of output	52,979	57,316
Consumption of refined copper†	39,815	41,741
Consumption of copper and alloy scrap‡ (copper content)	13,164	15,575

* Consumption of H. C. copper and cadmium copper wire rods for wire and production of wire for rods for export.

† Virgin and secondary refined copper.

‡ Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

U. K. TIN STATISTICS

There was a slight decline in tin consumption during January at 1,878 tons compared with the December figure of 1,997 tons, according to the British Bureau of Non-Ferrous Metal Statistics. Production was down also at 2,377 tons (plus 25 tons secondary) compared with 2,858 tons (41 tons) a month earlier. Stocks were also down at 10,884 tons against the December figure of 11,523 tons. Details of consumption of primary tin are given below:

	Jan. 1959	Jan. 1960
Tinplate	837	896
Tinning:		
Copper wire	53	40
Steel wire	8	10
Other	68	65
Total	129	115
Solder	193	207
Alloys:		
Whitemetal	255	241
Bronze and gunmetal	171	195
Other	30	41
Total	456	477
Wrought tin*		
Foil and sheets	28	27
Collapsible tubes	20	33
Pipes, wire and capsules	3	3
Total	51	63
Chemicals and other uses†	103	120
Total all trades	1,769	1,878

* Includes Compo and "B" metal.
† Mainly tin oxide and tin powder.

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD			ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following		Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.
1954 Averages	248 17 11	239 17 7	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4		78 5 4	77 16 11
1955 Averages	331 14 11	341 0 3	352 5 6	740 2 12	730 12 11	740 12 8	105 17 5	105 9 6		90 13 4	89 12 3
1956 Averages	328 14 5	324 13 1	329 1 8	787 14 9	774 7 7	788 13 3	116 6 5	114 8 9		97 14 3	95 3 7
1957 Averages	219 8 10	221 0 3	219 12 10	754 15 4	747 10 10	755 3 11	96 12 9	96 13 2		81 11 7	80 1 1
1958 Averages	197 13 3	197 9 3	197 16 11	734 18 6	734 17 11	735 6 1	72 15 8	73 6 10		65 17 12	65 10 12
1959											
January	230 2 0	227 5 10	230 5 0	758 15 6	759 4 9	759 2 10	71 17 0	72 3 3		74 17 8	72 18 8
February	236 4 2	235 10 8	236 7 6	772 9 9	773 9 0	772 15 0	69 19 4	70 16 6		73 13 8	71 19 8
March	248 10 3	247 12 2	248 13 6	779 14 9	783 5 9	780 1 6	69 10 3	71 4 2		75 2 5	73 18 8
April	240 0 5	240 6 6	240 3 5	782 5 3	783 15 5	782 11 4	69 1 0	70 8 4		72 13 9	72 9 2
May	236 4 2	236 11 6	236 6 9	784 4 3	784 10 9	784 10 0	70 16 0	71 13 10		77 7 1	75 17 6
June	230 0 11	230 0 4	230 3 8	788 7 9	789 8 10	788 14 1	69 13 4	71 5 8		78 8 2	77 6 11
July	220 17 6	221 14 9	221 0 3	792 6 6	790 16 4	792 13 6	70 5 0	71 1 2		80 10 7	79 13 4
August	232 16 9	231 9 3	233 0 0	792 18 6	791 18 3	793 4 6	72 3 3	73 3 1		85 5 11	83 19 5
September	230 7 6	230 8 8	230 10 3	792 15 0	792 6 4	793 0 5	70 14 5	72 1 10		86 1 5	84 19 10
October	241 18 5	236 17 5	242 2 11	794 2 9	794 8 2	794 8 2	70 12 5	71 12 2		91 7 4	89 9 2
November	250 11 8	241 7 7	250 18 1	795 7 5	795 14 6	795 13 4	72 2 11	72 7 10		94 18 8	90 3 7
December	255 8 10	239 15 1	255 14 7	789 3 2	785 6 8	789 11 4	72 13 11	72 9 0		95 3 10	90 3 3
1959 Averages	237 13 1	234 15 7	237 16 8	785 7 10	785 10 0	785 14 2	70 15 7	71 13 9		82 4 8	80 5 4
1960											
January	259 5 3	246 8 9	259 12 0	791 7 6	787 11 0	791 14 0	74 15 8	74 10 6		94 11 5	91 14 11
February	263 17 5	245 17 6	264 5 0	792 7 5	790 3 10	792 15 3	73 17 3	73 15 6		88 17 2	88 18 5
March	253 5 4	237 14 10	253 11 4	787 11 0	786 15 0	787 17 10	76 5 4	75 7 4		90 3 2	88 17 12

tional Tin Agreement which provided that if the council considers any country unlikely to be able to export its full quota it may increase the total permissible export amount by such an amount as will, in the opinion ensure that the total permissible exports required will, in fact, be exported. The council estimates that, in fact, exports in the second quarter will total about 35,300 tons.

Although not specifically mentioned, it was understood that this decision was prompted by the expectation that Bolivia would be unable to fulfil her full quota with the possibility also that there might be some minor shortfall in shipments from Indonesia. In this connection, the head of the Bolivian Mining Corporation was subsequently reported as saying that Bolivia would study the possibility of not ratifying the new Tin Agreement if the council placed sanctions on Bolivia for not fulfilling her quota. This remark is not taken unduly seriously, however, as there is probably no country which stands to gain as much from the International Tin Agreement maintaining satisfactory tin prices than Bolivia herself.

Open Market Prices Harden

Prices on the open market here have hardened somewhat in the last few weeks and at times tightness in spot supplies has resulted in a backwardation of between £5 and £6 a ton. Any shortfall in Bolvian exports is, of course, of major interest to this country which smelts the bulk of the Bolivian ore.

Meanwhile, consumer demand for tin generally is maintained at a good rate and the Buffer Stock Manager seems concerned to keep prices stable, at any rate until the United Nations meeting in May when the decision will be taken as to whether the present Agreement is to be renewed after June, 1961. Most people here expect that it will though perhaps with some modifications.

Lead Prices Stiffen

The lead consuming industries in the U. K. and indeed in Europe as a whole, have continued to be actively employed and, under the controlled volume of supplies coming on to the open market, prices have hardened in recent weeks.

Indeed early in April they rose to the highest figure since December, 1957. Provided consumption is maintained at recent levels—and there seems to be quite good reasons for expecting this—it looks as if lead prices may well gain further ground in the next few months as the limitation of supplies is expected to continue at any rate until September.

On March 17 a meeting of members of the London Metal Exchange approved, by a fairly narrow majority, the proposal to alter the standard LME lead contract so that it will conform to the basic methods of delivery and settlement which at present apply to the copper and tin contracts and to the principle of delivery in warehouse on a warrant basis. It is not yet known when the new form of contract is likely to be introduced. The proposed change is not very popular with producers as the alteration from an ex ship basis to an in warehouse basis would involve them in additional costs if putting metal on warrant, and some fears were expressed that serious tightness in supplies might ensue. However, it will be time enough to worry about that possibility when the new contract is actually in operation.

The majority decision of the United States Tariff Commission not to recommend any increase in U. S. import duties has, only naturally, been welcomed here.

Zinc Makes Better Showing

On the whole, zinc has made a better showing in the last month or two than most people had ex-

(Continued on Page 16)

U. K. LEAD STATISTICS

Lead stocks in January fell to 44,290 tons (36,470 tons imported and 7,820 tons English refined) against 48,005 tons in December (39,330 tons and 8,705 tons) according to the British Bureau of Non-Ferrous Metal Statistics. Production also showed a slight decline at 7,729 tons compared with the December total of 7,881 tons. Full consumption details are given below:

	Jan. 1959	Jan. 1960
Cables	9,044	8,779
Batteries — as metal	2,272	3,262
Battery oxides	2,050	2,870
Tetraethyl lead	2,022	1,964
Other oxides and compounds	1,967	2,674
White lead	760	744
Shot (including bullet rod)	360	429
Sheet and pipe	5,818	5,938
Foil and collapsible tubes	272	391
Other rolled and extruded	472	577
Solder	1,141	1,315
Alloys	1,556	1,532
Miscellaneous uses	1,138	1,270
Total consumption	28,872	31,745
of which:		
Imported virgin lead	14,645	16,177
English refined	5,993	7,158
Scrap including remelted	8,225	8,410

U. K. ZINC STATISTICS

There was a sharp gain in zinc stocks at the end of January at 48,337 tons compared with the December total of 37,162 tons, according to the British Bureau of Non-Ferrous Metal Statistics. Of this total consumers held 18,682 tons. Production, however, showed a slight decline at 6,538 tons against 7,025 tons a month earlier. Consumption details are given below:

	Jan. 1959	Jan. 1960
Brass	9,520	10,279
Galvanizing	7,935	7,907
of which:		
General	2,857	2,846
Sheet	2,177	1,772
Wire	1,571	1,845
Tube	1,330	1,444
Rolled zinc	2,107	1,892
Zinc oxide	2,393	2,395
Zinc diecasting and forming alloy	3,669	5,965
Zinc dust	907	1,224
Miscellaneous uses	958	975
Total all trades	27,489	30,637
of which:		
Slab zinc		
High purity (99.99%)	4,036	6,544
Electrolyite and high grade (99.95%)	4,969	5,815
G.O.B. Prime Western and debased	9,961	10,587
Other virgin material	211	223
Remelted zinc	522	678
Scrap — (zinc content)		
Zinc metal, alloys and residues	2,771	2,873
Brass and other copper alloys	5,019	3,917

U. S. COPPER MARKET BOLSTERED BY GOOD EXPORT DEMAND; PRODUCERS, CUSTOM SMELTERS AT 33c LB.

Domestic Fabricators Cut Some Prices to Meet Foreign Competition; Lead, Zinc Markets Steady; Tin Prices Ease; Aluminum Hearings Start on May 2

April 14, 1960

BOLSTERED by good export demand the domestic copper market kept on an even keel during the month in review, with producers and custom smelters maintaining the quotation of 33.00c a pound. Lead and zinc markets continued to plod along, with the former metal at 12.00c New York and Prime Western zinc at 13.00c East St. Louis. In zinc, higher premiums for Special High Grade and regular High Grade went into effect although demand was on the light side. Tin remained quiet with prices edging downward. Aluminum and other metals managed to stay out of the headlines.

Smelter Price Holding

Export sales were the mainstay of the domestic copper market, particularly for custom smelter metal. Export business largely filled the void that had been created by the hand-to-mouth buying by domestic consumers, particularly by brass and wire mills. Also contributing support to the custom smelter 33.00c a pound delivered quotation was the upward trend of late on the London Metal Exchange. As long as the London spot quotation is on a parity with the custom smelter quotation there appeared to be little likelihood of the latter coming down. The bid for spot at the single session on the LME on April 14 was £266 a long ton, or about 33.25c a pound.

The historical pattern has been that when the London spot price is 2.00c to 3.00c a pound below the domestic custom smelter level, the latter becomes vulnerable because with such disparity in quotation it becomes more profitable for the custom smelters to sell in the domestic market the copper that is refined from foreign concentrates, even though such copper carries an import duty of 1.70c a pound.

Under present market conditions, copper that is refined here from foreign concentrates, finds a ready outlet abroad. As a matter of fact, it is even profitable at this time to buy scrap here, refine it and then export the copper. This situation, coupled with the fact that custom smelters have sold their intake for April, augurs well for a maintenance of their 33.00c level until world supply-demand conditions change.

The strength for copper on the London market reflected a tight spot supply (with the backwardation, or premium for spot over forward metal around 2.65c a pound at this writing), plus a two-day stoppage at the Mufulira mine of the Rhodesian Selection Trust Group on April 11 and 13. The racial and political unrest in South Africa also has caused concern among European consumers who fear the South African disturbances may spread to the Rhodesian Copperbelt and the Belgian Congo, major sources of their supply.

Also in the news on the labor front have been the negotiations in Chile between Anaconda and the workers at Potrerillos and El Salvador. The union's contract with the company expires on April 30. A company official, conversant with the Chilean situation, stated that the negotiations will probably continue until the eleventh hour since it has become almost a time honored practice to keep bargaining going until the very last minute.

Custom smelters on April 13 increased their scrap copper buying prices 0.50c to 0.75c a pound, to a basis of 24.25c to 24.50c a pound for No. 2 heavy copper and wire scrap. On April 14 all smelters were bidding on the basis of 24.50c but were attracting little scrap. The recent stoppage at Mufulira and the good demand for scrap from abroad appeared to have dried up offers from dealers.

March Copper Statistics

The March copper statistics were reported as bullish but with certain reservations. And it was these reservations that gave the bearish element in the industry grist for their mill. Domestic primary production hit an all-time high of 107,995 tons and was up 22,096 tons from February; including the copper refined from secondary, the March output was 117,161 tons as compared with 98,527 tons in the preceding month. March figures for refined copper follow in tons, with the February totals in parentheses: 129,758 (105,417); deliveries to fabricators, 122,752 (111,851); stocks at end of month, 61,598 (64,007).

Primary production outside the U. S. in March also set a new record — 199,784 tons, a gain of 13,918 tons over February; with the scrap intake included the gain is 14,991 tons. Foreign refined output came to 172,195 tons, an increase of 7,664 tons. Foreign deliveries of refined copper to fabricators in March rose to 181,723 tons, a gain of 12,918 tons. At the end of March the foreign refined stocks amounted to 239,192 tons, an increase of only 848 tons.

Free World (U. S. and foreign) statistics for March follow in tons, with the February totals in parentheses: crude production, including secondary, 319,977 (286,343); refined output, 301,953 (269,952); deliveries to customers, 304,475 (280,656); refined stocks at end of month, 300,790 (302,351). One of the reservations made by those who regard the statistics as bullish, is that in spite of the record-breaking deliveries, the world's crude production in March exceeded the apparent consumption by 15,502 tons and that if the disparity between the two continues, it cannot be long before the stocks become top heavy.

Meet Foreign Competition

Leading domestic brass mills announced on April 11 that prices for 16-ounce sheet copper, in 30 and 36-inch widths and in 96 and 120-inch lengths, were being reduced to meet the prices quoted for such competitive imported products in the domestic market. The fabricators said they were prepared to remain competitive and their prices would accordingly fluctuate to match prevailing prices for similar imported material.

Competition has been keen not only in foreign brass mill products but also in foreign copper tubing. One of the domestic copper tube manufacturers said it had been fighting foreign competition in its U. S. market for several years, with the fight becoming extremely competitive in the last two years. The tube maker estimated that foreign competition

had cost it "about 25 to 30 per cent of its domestic market."

Lead Demand Picks Up

The lead market, which had been plodding along, recently had a spurt in demand. Sales for the week ended April 13 totaled around 14,800 tons, a sharp increase from the 7,700 tons for the previous week ended April 6. What pleased lead producers was the fact that the purchases were made chiefly at the spot price of 12.00c New York and 11.80c St. Louis, rather than on the monthly average.

Lead statistics for February (latest available at this writing) showed a decrease in domestic production of the refined metal, with shipments and refined stocks also down. Domestic refined lead output amounted to 36,435 tons, a drop of 3,608 tons from January. For the first two months of the current year the output came to 76,478 tons compared with 83,150 tons in the like 1959 period.

Shipments of domestically refined lead in February totaled 37,599 tons as against 42,083 tons in January. Shipments in the first two months of 1960 amounted to 79,682 tons as compared with 63,720 tons in the same period of 1959.

Refined stocks in the hands of producers at the end of February were 116,269 tons, a decrease of 1,320 tons from the end of January.

Zinc Market Steady

The zinc market has been quite steady of late with the price holding at 13.00c East St. Louis. The 1.75c a pound premium on Special High Grade, and of 1.50c a pound on regular High Grade, was being adhered to by the large producers although there have been some resale lots that have been offered at concessions.

The requests of late for deferred shipments of Special High Grade that producers have been receiving came principally from the independent alloy makers. The automobile firms that make their own die castings were taking tonnages in accordance with their contracts.

The zinc statistics for March were better than had been anticipated. In spite of the fact that the month's output of all grades of zinc was the largest for any period since December, 1957, there was a slight decrease in stocks due to the fact that the total shipments were slightly in excess of production.

Output of all grades of zinc in March came to 86,028 tons as compared with 74,738 tons in February. The increase was chiefly in Regular and Special High Grade zinc. Shipments of all grades to domestic consumers in March were 80,760 tons as against 78,029 tons in February. At the end of March stocks of all grades of zinc in producers' hands were 136,566 tons, the smallest that they have been since the end of May, 1957, and 496 tons less than they were at the end of February.

Tin Moves Lower

Tin prices eased during the month in review, as large consumers remained on the sidelines and displayed little inclination to buy metal. The spot Straits price at New York on April 14 was 99.12½c a pound, as against the last previous quotation in this space of 99.75c for March 23. The market showed softening tendencies on April 14 and it was indicated that nearby prices were shadeable on a firm bid.

The high for the March 23-April 14 period was the 99.87½c for March 30, and the low of 99.12½c was registered on April 12, 13 and 14.

Aluminum Hearings

Starting May 2 the House Small Business subcommittee will hold hearings in Washington concerning compaints the unit has received from dealers and consumers of aluminum within the last half year or so. Rep. Sidney R. Yates (Dem., Ill), chairman of the subcommittee, said the hearings will look into the charge of "price squeeze" made by extruders against primary producers, the extension of "hot metal" contracts, and scrap aluminum exports.

Platinum, Mercury, Silver

There was little change, pricewise, in platinum, quicksilver and silver. Platinum continued to be quoted at $81-$85 an ounce, which range was established on February 17. The New York silver price was maintained at 91.375c an ounce, which level was established on September 3 of last year. Quicksilver was steady a $213 to $215 per flask of 76 pounds, which range was established on February 17 of this year.

British Metal Markets

(Continued from Page 14)

pected. It was thought that the lifting of production and export restrictions which prevailed in the greater part of last year, together with the releasing of metal from U. K. Government stocks—admittedly at a very moderate rate per month—might ease the supply situation and possibly bring prices down to a somewhat lower level.

However, consumption of the metal, particularly outside the United States, has been making an excellent showing and so far, at any rate, available supply has been readily absorbed and prices are again around the £90 mark.

It is possible that the full effect of the lifting of supply restrictions has not yet been felt but there is less disposition now to talk of lower prices than there was two months ago.

In zinc, as in lead, members of the London Metal Exchange have decided by a majority vote that a change in the standard contract should be made, putting it on an in warehouse and warrant basis, with daily settlements as is at present the case for copper and tin.

World Lead and Zinc

(Continued from Page 12)

capacity at lower costs, and in encouraging freedom of international trade. I was interested to note that this position is supported in a recent statement by the Committee for Economic Development which represents leading business industries in the United States.

I have tried to give you a picture of the growth of world-wide cooperation which is developing in the lead-zinc industry. As compared to conditions a few years ago, there has been definite improvement in the general health of the industry, and there are many signs of encouragement. At the same time, as we are now entering the 1960's, there are still many problems facing us. International cooperation has greatly helped the lead-zinc industry in its technical problems and in its broader marketing problems. With continued sincere and progressive international cooperation I believe that our industry can look forward to a bright future in which our products will find ever-increasing applications in the service of mankind.

Washington Report

(Continued from Page 5)

New York and 14.50 cents per pound for Prime Western Zinc at East St. Louis. No stabilization payments would be made to any production where the recoverable content in any 12-month period was in excess of 5,000 tons of lead and zinc combined.

Among those supporting the proposed legislation were Representatives Ed Edmondson (Dem., Okla.) and Gracie Pfost (D., Idaho).

Daily Metal Quotations for March, 1960

The following quotations are taken from the Daily Metal Reporter*

(In Cents Per Pound)

MARCH	Copper					Tin		Lead		Zinc					Aluminum	Antimony	Silver
	Producers' Price Delivered	Custom Smelters' Price, Del.	Electro f. o. b. Refinery	Lake Del.	Aver. Prompt Electrolytic Export Price F.a.s. N. Y.	Straits New York Spot	Straits New York Prompt	New York	Outside St. Louis	Prime West. f. o. b. E. St. Louis	Prime West. Del. N. Y.	Brass Spec. f. o. b. E. St. Louis	High Grade Delivered	Spec. High Grade Delivered	30-Lb. Ingot 99½% Plus f. o. b.	Domestic Spot 99.5% f.o.b. Laredo	(Cents Per Ounce) New York
1	33.00	35.00	33.60	33.00	Nom.	101.00	100.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
2	33.00	35.00	33.60	33.00	Nom.	101.125	100.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
3	33.00	35.00	33.60	33.00	Nom.	101.00	100.625	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
4	33.00	35.00	33.60	33.00	Nom.	100.625	100.25	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
7	33.00	35.00	33.60	33.00	Nom.	100.50	100.25	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
8	33.00	35.00	33.60	33.00	Nom.	100.50	100.125	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
9	33.00	35.00	33.60	33.00	Nom.	100.125	99.875	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
10	33.00	33.00	32.60	33.00	Nom.	100.00	99.875	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
11	33.00	33.00	32.60	33.00	Nom.	100.125	100.00	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
14	33.00	33.00	32.60	33.00	Nom.	100.375	100.25	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
15	33.00	33.00	32.60	33.00	Nom.	100.50	100.375	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
16	33.00	33.00	32.60	33.00	Nom.	100.50	100.50	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
17	33.00	33.00	32.60	33.00	Nom.	100.50	100.50	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
18	33.00	33.00	32.60	33.00	Nom.	100.25	100.125	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
21	33.00	33.00	32.60	33.00	Nom.	100.00	99.875	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
22	33.00	33.00	32.60	33.00	31.50	99.875	99.875	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
23	33.00	33.00	32.60	33.00	31.625	99.75	99.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
24	33.00	33.00	32.60	33.00	31.625	99.625	99.625	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
25	33.00	33.00	32.60	33.00	31.625	99.75	99.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
28	33.00	33.00	32.60	33.00	31.75	99.75	99.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
29	33.00	33.00	32.60	33.00	31.25	99.75	99.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
30	33.00	33.00	32.60	33.00	31.00	99.875	99.875	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
31	33.00	33.00	32.60	33.00	31.00	99.75	99.75	12.00	11.80	13.00	13.50	13.25	14.25	14.50	28.10	29.00	91.375
AV.	**33.00**	**33.609**	**32.904**	**33.00**	**31.422**	**100.228**	**100.098**	**12.00**	**11.80**	**13.00**	**13.50**	**13.25**	**14.25**	**14.50**	**28.10**	**29.00**	**91.375**
HI.	**33.00**	**35.00**	**34.60**	**33.00**	**32.00**	**101.125**	**100.75**	**12.00**	**11.80**	**13.00**	**13.50**	**13.25**	**14.25**	**14.50**	**28.10**	**29.00**	**91.375**
LO.	**33.00**	**33.00**	**32.60**	**33.00**	**31.00**	**99.625**	**99.625**	**12.00**	**11.80**	**13.00**	**13.50**	**13.25**	**14.25**	**14.50**	**28.10**	**29.00**	**91.375**

* When split quotations prevail the daily average price is listed. The highs and lows for the month take into consideration the levels reached at both sides of such ranges.

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1957, Under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE — The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. The tax was restored July 1, 1958. The 1956 Geneva Agreement provided for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the prices were above 24c; if the price is below 24c the 2c tax will prevail.

Copper ore and concentrates, usable as flux, etc., copper content	1.70c lb.
Copper ore and concentrates, product of Cuba, copper content	free
Copper ore and concentrates, product of Philippines, copper content	0.17c lb.
Copper ore and concentrates, copper content	1.70c lb.
Regulus, black, or coarse copper, and cement copper, copper content	1.70c lb.
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	1.70c lb.
Refined copper in ingots, plates or bars, copper content	1.70c lb.
Copper rolls, rods or sheets	1¼c lb. (plus 1.70c lb. ††)
Copper seamless tubes and tubing	3½c lb. (plus 1.70c lb. ††)
Copper plain wire	12½% (plus 1.70c lb. ††)
Copper brazed tubes†	4.50c lb. (plus 1.70c lb. ††)
Old and scrap copper, fit only for remanufacture: and scale and clippings, copper content	1.70c lb.

†† Copper content.

BRASS

Brass rods, sheets, plates, bars, strips, Muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12½%

LEAD

NOTE — Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended February 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	¾c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheets, shot, glaziers' lead, and wire	1 5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1¼c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE — Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended February 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	¾c lb.
Dross and skimmings	¾c lb.
Zinc in blocks, pigs or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1⅛c lb.
Zinc dust	7/10c lb.
Zinc die-casting alloys	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for†	1.25c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc.†	2.50c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb
Antimony needle or liquidated	¼c lb
Antimony oxide	1c lb
Antimony sulphides	½c lb. & 12½%
Arsenic, metallic†	2.50c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined**	¼c lb
Bismuth	1⅞%
Bismuth salts and compounds	35%
Beryllium metal†	21%
Beryllium ore	free
Cadmium	3¾c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Chrome or chromium metal†	10½%
Cobalt metal	free
Cobalt ore and concentrates, cobalt content	free
Magnesium, metallic†	50%
Magnesium powder, sheets, wire†	17c lb. & 8½%
Magnesium alloys	20c lb. & 10%
Magnesium scrap	free
Manganese ores, containing over 10% manganese, manganese content	¼c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content†	30c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12½%
Nickel scrap	free
Nickel tubes, tubing (if cold rolled, drawn or worked — 2½% extra)	6¼%
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than ⅛ in. thick, oz. troy	free
Platinum, ores, platinum content, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12½%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

***Crude bauxite import duty suspended through July 15, 1960. **Under Public Law 25 alumina imported for use in aluminum production is free for entries from July 17, 1956 through July 15, 1960. †Tariff reduced 5% on June 30, 1958, under Geneva Agreement which expires on June 30, 1959.**

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

(In tons of 2,000 pounds)

	Crude Production		Refined	Deliveries to	Refined Stock	Stock Increases or Decreases		
	Primary	Secondary	Production	Customers	End of Period	Blister	Refined	Total
1957								
Total	**2,897,719**	**123,270**	**3,035,588**	**2,853,307**	**458,340**	**—14,599**	**+103,920**	**+89,321**
1958								
Total	2,713,412	138,696	2,811,108	2,918,404	262,544	+41,000	—195,796	—154,796
1959								
June	277,855	12,347	284,420	294,232	345,429	+ 5,733	— 4,914	+ 819
July	256,729	9,198	274,752	230,524	390,168	— 8,825	+44,739	+35,914
August	232,944	4,552	223,452	237,944	378,649	+11,543	—11,519	+ 24
September	186,837	7,652	187,294	232,282	354,926	+ 7,195	—23,723	—16,528
				(Oct. 1)	356,614			
October	184,409	10,955	181,707	210,945	330,438	+13,657	—26,176	—12,519
November	192,353	10,631	186,496	229,281	311,049	+16,388	—19,389	— 3,001
December	211,575	9,767	203,614	238,095	293,006	+17,728	—18,043	— 315
Total	2,860,454	134,583	2,926,657	2,973,026	293,006	+68,380	+28,774	+97,154
1960								
January**	259,779	13,116	257,614	272,040	304,038	+15,278	— 3,426	+11,852
February	271,765	14,578	269,952	280,656	302,351	+16,391	— 1,687	+14,704
March	307,779	12,198	301,953	304,475	300,790	+18,024	— 1,561	+16,463

****Starting with January, 1960, the figures reflect reports from four additional companies.**

In U. S. A.

1957								
Total	**1,116,380**	**112,060**	**1,616,964**	**1,277,946**	**181,024**	.....	**+60,379**	.....
1958								
Total	1,008,170	131,294	1,446,540	1,179,416	80,722	.....	—100,302	.....
1959								
June	99,419	11,352	138,403	150,117	85,674	.....	— 458	.....
July	81,662	8,323	134,020	108,127	103,432	.....	+17,558	.....
August	51,327	3,994	83,677	90,123	94,109	.....	— 9,323	.....
September	19,503	6,578	44,468	92,501	79,826	.....	—14,283	.....
				(Oct. 1)	81,514			
October	20,931	9,861	44,218	68,648	78,308	.....	— 3,206	.....
November	18,351	9,710	37,299	83,626	74,642	.....	— 3,666	.....
December	26,686	8,595	46,302	90,039	64,763	.....	— 9,879	.....
Total	805,875	121,462	1,221,612	1,312,328	64,763	.....	—17,647	.....
1960								
January	65,677	10,707	86,491	102,829	68,550	.....	+ 3,787	.....
February	35,899	12,628	105,417	111,851	64,007	.....	— 4,543	.....
March	107,995	9,166	129,758	122,752	61,598	.....	— 2,409	.....

Outside U. S. A.*

1957								
Total	1,781,339	11,210	1,418,624	1,575,361	277,316	.....	**+43,541**	.....
1958								
Total	1,705,242	7,402	1,364,568	1,738,988	181,822	.....	—95,494	.....
1959								
June	178,387	995	146,017	144,115	259,755	.....	— 4,456	.....
July	175,067	875	140,732	122,397	286,736	.....	+26,981	.....
August	181,617	558	142,276	147,821	284,540	.....	— 2,196	.....
September	167,334	1,074	142,646	139,781	275,100	.....	**— 9,440**	.....
October	163,478	1,093	137,489	142,297	252,130	.....	—22,970	.....
November	173,902	921	149,197	145,655	236,407	.....	—15,723	.....
December	184,889	1,172	157,312	148,056	228,243	.....	— 8,164	.....
Total	2,054,579	13,121	1,705,045	1,660,698	228,243	.....	+46,421	.....
1960								
January**	194,099	2,409	171,123	169,211	235,488	.....	— 7,213	.....
February	185,866	1,950	164,535	168,805	238,344	.....	+ 2,856	.....
March	199,784	3,023	172,199	181,723	239,192	.....	+ 848	.....

*** Excluding Russia, Yugoslavia, Norway, Sweden, Japan and Australia.**

****Starting with January, 1960, the figures reflect reports from four additional companies.**

Electrolytic Copper

Producers' Price, Del. Valley
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	36.00	25.69	29.00	33.00
Feb.	33.318	25.00	29.972	33.00
Mar.	32.00	25.00	31.14	33.00
Apr.	32.00	25.00	31.50	...
May	32.00	25.00	31.50	...
June	30.955	25.36	31.50	...
July	29.25	26.125	30.587	...
Aug.	28.639	26.50	30.00	...
Sept.	27.031	26.50	30.571	...
Oct.	27.00	27.548	30.75	...
Nov.	27.00	29.00	32.375	...
Dec.	27.00	29.00	33.00	...
Aver.	**30.183**	**26.31**	**30.991**	...

Electrolytic Copper

Custom Smelters' Price, Del. Valley
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	34.87	24.577	29.429	35.00
Feb.	32.273	23.557	30.361	35.00
Mar.	30.952	23.326	33.31	33.609
Apr.	31.24	23.66	32.84	...
May	30.163	23.865	32.00	...
June	29.60	25.52	31.477	...
July	28.39	29.231	29.52	...
Aug.	27.862	26.52	30.056	...
Sept.	25.948	26.355	33.00	...
Oct.	25.722	28.577	33.00	...
Nov.	25.435	29.829	Nom.	...
Dec.	25.26	28.846	35.00	...
Aver.	**28.93**	**25.905**	**31.808**	...

Lake Copper

Producers' Price Delivered
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	36.00	25.69	29.00	33.00
Feb.	33.182	25.00	30.00	33.00
Mar.	32.00	25.00	31.14	33.00
Apr.	32.00	25.00	31.50	...
May	32.00	25.00	31.50	...
June	30.955	25.00	31.50	...
July	29.25	25.75	30.587	...
Aug.	28.611	26.50	30.00	...
Sept.	27.00	26.50	31.107	...
Oct.	27.00	27.577	31.50	...
Nov.	27.00	29.00	32.833	...
Dec.	27.00	29.00	33.00	...
Aver.	**30.162**	**26.251**	**31.222**	...

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consmd. by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1954						
Total	360,526	58,125	304,619	136,581	1,231,840	— 22,549
1955						
Total	.....	.....	.....	.....	1,418,241	.....
1956						
Total	.....	.....	.....	.....	1,416,378	.....
1957						
July	432,918	85,728	341,684	144,410	77,991	+ 32,552
Aug.	429,627	82,768	344,315	144,375	110,323	+ 23,826
Sept.	425,168	80,436	344,530	144,538	106,927	+ 16,536
Oct.	420,130	80,774	341,869	138,420	119,161	+ 20,615
Nov.	428,520	68,249	345,832	128,719	98,725	+ 22,218
Dec.	430,171	75,627	347,465	138,631	83,067	+ 19,702
Total	.....	.....	.....	.....	1,279,086	.....
1958						
Jan.	445,514	57,917	348,426	123,756	94,642	+ 31,249
Feb.	452,673	52,342	351,035	128,330	86,625	+ 25,650
Mar.	448,125	71,693	346,875	141,387	83,694	+ 31,556
Apr.	450,442	76,602	347,607	145,623	79,613	+ 33,814
May	441,001	78,194	346,404	138,190	88,447	+ 34,601
June	433,526	72,383	330,301	145,162	109,011	+ 30,448
July	431,796	77,362	326,263	153,529	79,353	+ 29,366
Aug.	421,931	78,194	323,667	150,436	96,717	+ 26,022
Sept.	416,887	71,025	319,281	145,390	105,474	+ 28,941
Oct.	399,113	91,019	315,929	156,692	138,017	+ 17,511
Nov.	419,914	88,580	328,238	157,799	110,487	+ 22,457
Dec.	447,123	90,401	326,438	177,869	92,573	+ 35,217
Total	....	....	....	....	1,165,364	....
1959						
Jan.	457,387	101,182	337,761	172,698	108,556	+ 44,070
Feb.	459,046	123,321	390,522	183,113	116,565	+ 58,732
Mar.	449,441	130,785	334,904	211,547	133,259	+ 33,775
Apr.	463,582	125,250	337,282	204,618	120,680	+ 46,932
May	474,657	133,694	338,835	210,424	124,060	+ 59,092
June	492,072	111,229	343,585	191,875	133,702	+ 67,841
July	518,699	110,367	357,474	193,338	81,500	+ 68,254
Aug.	487,259	97,786	359,049	191,476	121,563	+ 34,520
Sept.	462,880	111,675	360,760	206,254	116,880	+ 7,541
Oct.	431,612	119,806	347,136	211,359	100,302	— 7,077
Nov.	412,401	127,162	338,856	224,442	102,837	— 23,735
Dec.	414,757	130,324	340,349	202,775	88,706	+ 1,957
Total	....	....	....	....	1,347,610	....
1960						
Jan.	414,652	141,860	340,233	193,300	102,295	+ 22,979
Feb.	423,131	132,696	343,196	165,991	103,072	+ 46,640

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	6,640	4,528	6,486	9,859	11,047	14,322	17,506	16,024	14,511	15,165
Feb.	5,153	3,633	10,337	8,490	15,198	14,497	11,145	9,518	14,712	14,614
Mar. ...	7,912	5,243	19,991	9,738	12,198	15,921	13,934	11,783	19,522	11,675
Apr.	8,553	6,214	16,583	9,004	13,162	17,233	14,288	15,279	17,525	....
May	8,458	8,033	10,857	8,687	15,133	20,805	12,397	13,989	13,960	....
June ...	8,628	4,425	10,945	13,309	14,765	14,758	11,949	13,945	15,065	....
July	6,642	5,188	9,063	10,260	9,988	12,632	8,926	12,185	11,144	....
Aug.	6,113	5,003	7,137	10,100	12,197	12,510	11,645	11,896	7,468	....
Sept. ...	3,561	4,667	9,042	10,641	15,037	9,518	9,756	9,268	10,070	....
Oct.	3,336	4,602	10,065	11,662	12,897	15,570	13,151	23,088	12,860	....
Nov.	3,179	4,724	7,815	10,879	9,865	11,369	11,146	16,425	11,773	....
Dec.	4,538	6,208	11,476	14,876	13,180	14,613	11,237	10,796	10,894	....
Total ..	71,812	62,470	129,798	127,449	154,714	173,748	147,080	164,196	159,507	....

* As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments

(NET TONS)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	18,874	28,416	28,315	23,423	20,661	25,201	27,736	25,681	20,468	22,046	22,695
Feb.	18,487	27,168	24,211	25,429	19,920	25,349	24,949	20,769	17,413	23,746	23,129
Mar.	22,494	31,997	23,890	28,256	23,653	29,713	28,310	21,948	18,825	26,109	23,232
Apr.	22,118	30,473	22,547	25,044	24,746	27,641	25,808	23,507	18,009	26,115	....
May	23,643	33,267	21,740	21,660	22,269	23,708	23,437	22,037	17,191	23,967	....
June	25,093	33,817	21,274	20,818	22,348	23,141	18,842	18,888	17,962	22,922	....
July	21,609	32,016	18,947	19,321	17,074	18,513	17,364	16,695	16,658	20,346	....
Aug.	29,689	25,285	21,807	20,156	21,684	27,013	23,812	19,654	17,882	21,741	....
Sept.	28,811	22,285	22,770	21,463	22,464	26,349	20,929	19,670	20,540	22,685	....
Oct.	32,240	23,124	25,811	22,280	24,080	25,228	23,045	22,800	23,225	23,067	....
Nov.	31,748	23,544	23,441	21,806	23,061	25,102	21,818	19,767	20,758	22,283	....
Dec.	28,575	20,987	22,983	20,541	21,274	21,448	18,046	16,875	18,676	19,535	....
Total	303,563	332,378	277,736	271,251	263,233	298,406	274,096	248,297	227,607	274,562	....
Aver.	25,297	27,615	23,145	22,694	21,936	24,867	22,841	20,681	18,133	22,864	....

Mine Production of Copper in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern	Missouri	Western	Total
1957				
Ttl.	79,369	1,800	995,753	1,076,922
1958				
Sept.	5,312	114	77,561	82,987
Oct.	7,002	60	85,075	91,518
Nov.	6,617	60	87,379	94,056
Dec.	6,614	70	88,070	94,514
Ttl.	76,849	1,250	902,021	980,304
1959				
Jan.	6,590	126	90,351	97,067
Feb.	5,883	130	81,849	87,862
Mar.	6,513	140	91,681	98,334
Apr.	7,240	150	93,209	100,599
May	7,007	110	94,493	101,610
June	7,245	124	87,035	94,404
July	6,763	111	80,058	86,932
Aug.	6,813	116	47,910	54,839
Sept.	6,655	123	20,342	27,120
Oct.	7,092	152	22,669	29,913
Nov.	3,226	140	22,529	25,895
Dec.	3,228	128	22,504	25,860
Ttl.	74,255	1,550	754,630	830,435
1960				
Jan.	3,904	107	44,257	48,628

Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1958				
Aver	**21.788**	**20.282**	**18.035**	**18.047**
1959				
Feb.	26.42	24.92	22.67	24.11
Mar.	28.79	27.29	25.04	26.79
Apr.	28.04	26.50	24.29	26.04
May	27.81	26.31	24.06	25.81
June	26.80	25.30	23.05	24.80
July	25.14	23.64	21.39	23.14
Aug.	25.762	24.762	22.012	23.762
Sept.	26.369	24.869	22.319	24.369
Oct.	27.929	25.405	23.155	24.905
Nov.	30.00	26.208	23.958	24.528
Dec.	29.50	25.993	23.743	24.239
Av.	27.321	25.377	23.102	24.774
1960				
Jan.	30.025	26.30	24.05	24.55
Feb.	29.868	25.75	23.50	24.00
Mar.	27.207	24.038	21.788	22.071

*Of dry content for material having a dry copper content in excess of 60%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)

(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1958				
Aver.	**21.777**	**20.277**	**18.653**	**13.024**
1959				
Feb.	26.42	24.92	21.08	15.08
Mar.	28.79	27.29	22.85	16.85
Apr.	28.04	26.54	21.69	15.70
May	27.81	26.31	21.17	15.17
June	26.80	25.30	21.159	15.307
July	25.14	23.64	20.13	14.47
Aug.	25.762	24.262	21.286	14.81
Sept.	26.369	24.869	22.304	16.50
Oct.	27.595	25.405	22.19	16.048
Nov.	29.00	26.208	22.75	16.326
Dec.	28.50	25.993	22.50	16.00
Av.	27.120	25.377	21.567	15.52
1960				
Jan.	29.025	26.30	22.74	16.39
Feb.	28.408	25.75	22.00	16.00
Mar.	27.321	24.038	20.429	15.174

Lead Statistics Reported by American Bureau of Metal Statistics

Lead Refineries in U. S. A. and Outside U. S. A.

(Recoverable Lead Content in Tons of 2,000 Pounds)

Combined U. S. A. and Outside U. S. A.

	REFINED PRODUCTION			DELIVERIES			STOCKS		
1958	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total
Total ..	1,485,282	106,383	1,591,665	1,307,390	102,697	1,410,087	.....	.....	.....
1959									
Aug. ..	105,433	7,094	112,527	114,715	11,517	126,232	290,832	16,357	307,189
Sept. ..	98,966	4,751	103,717	101,415	5,154	106,569	288,383	15,954	304,337
Oct. ..	101,159	8,583	109,742	112,940	8,808	121,748	276,602	15,729	292,331
Nov. ..	110,295	9,330	119,625	117,420	8,885	126,305	269,477	16,174	285,651
Dec. ..	121,374	8,444	129,818	118,582	4,107	122,689	272,269	20,511	292,780
Total ..	1,406,485	105,943	1,512,418	1,422,985	106,666	1,529,651	.....	.....	.....
1960									
Jan. ..	131,753	9,395	141,148	124,705	7,413	132,118	*281,530	*20,280	301,810
Feb. ..	127,595	8,977	136,572	121,803	9,539	131,342	287,322	19,719	307,041
U. S. A.									
1958									
Total ..	473,208	46,985	520,193	589,528	49,893	639,421	.....	.....	.....
1959									
Aug. ..	23,404	2,091	25,495	55,094	7,397	62,491	174,959	7,979	182,938
Sept. ..	14,699	88	14,787	37,310	543	37,853	163,467	7,727	171,194
Oct. ..	18,096	697	18,793	35,110	2,290	37,400	167,969	8,150	176,119
Nov. ..	17,785	854	18,639	42,000	2,038	44,038	158,009	7,602	165,611
Dec. ..	27,969	2,052	30,021	41,502	1,745	39,757	154,307	11,552	165,859
Total ..	343,726	34,628	378,354	596,214	42,312	638,526	.....	.....	.....
1960									
Jan. ..	37,497	2,414	39,911	49,498	2,304	51,802	156,215	12,257	168,472
Feb. ..	33,742	2,570	36,312	56,569	2,659	59,228	152,299	12,464	164,763
Outside U. S. A.									
1958									
Total ..	1,012,074	59,398	1,071,472	717,862	52,804	710,666	.....	.....	.....
1959									
Aug. ..	82,029	5,003	87,032	59,621	4,120	63,741	115,873	8,378	120,846
Sept. ..	84,267	4,663	88,930	64,105	4,611	68,716	124,916	8,227	133,143
Oct. ..	83,063	7,886	90,949	77,830	6,518	84,348	108,633	7,579	116,212
Nov. ..	92,510	8,476	100,986	75,420	6,847	82,267	111,468	8,572	120,040
Dec. ..	93,405	6,392	99,797	77,080	5,852	82,932	117,962	8,959	126,921
Total ..	1,062,759	71,315	1,134,074	826,771	64,453	891,125	.....	....	.....
1960									
Jan. ..	94,256	6,981	101,237	75,207	5,109	80,316	*125,315	*8,023	133,338
Feb. ..	93,853	6,407	100,260	65,234	6,880	72,114	135,023	7,255	142,278

* Stocks on Jan. 1, 1960 are not comparable to those reported for Dec. 31, 1959 due to changes in the basis by reporting areas.

Summary of Lead Statistics for United States

	Stocks (end of period)					Smelter Receipts			
		Base Bullion				Primary Origin			
Recoverable Lead Content In Tons of 2000 Pounds	Raw Material at Smelter	At Smelter & Transit	At Refinery and Process	Refined Pig and Antimonial	Total	U.S.A.	Outside U.S.A.	Scrap	Total
1958									
December ..	68,197	4,489	28,955	252,466	354,107	25,544	18,921	4,090	43,555
Total	....	....	....	.....	.....	297,687	191,415	29,080	518,182
1959									
July	51,091	7,009	31,461	200,608	290,169	20,029	11,799	2,065	33,893
August	49,262	9,637	24,994	182,938	266 831	20,958	2,703	1,428	25,089
September .	61,420	9,609	29,012	171,194	271,235	13,725	11,675	753	26,153
October ...	66,942	7,285	24,758	176,119	275,194	15,837	4,959	1,049	21,845
November ..	70,376	3,617	27,335	165,611	266,939	13,956	5,599	649	20,204
December ..	70,036	4,594	35,288	165,859	275,777	20,125	10,013	2,621	32,759
Total	.....	....	.....	.....	.....	244,803	125,100	20,596	389,999
1960									
January ...	78,131	4,003	37,013	168,472	287,619	21,094	26,442	1,900	49,435
February ...	86,087	2,680	36,748	164,763	290,278	24,719	15,822	2,136	42,673

		Refined Productions			Deliveries to U. S. Fabricators including imports from sources reporting to ABMS		
1958	Smelter Production	Pig	Antimonial	Total	Pig	Antimonial	Total
Total	512,323	473,208	46,985	520,193	589,528	49,893	639,421
1959							
June	35,807	31,786	5,296	37,082	75,563	7,122	82,685
July	37,328	30,098	2,646	32,744	31,991	2,153	34,144
August	26,698	23,404	2,091	25,495	55 094	7,397	62,491
September	13,995	14,699	88	14,787	37,310	543	37,853
October	16,315	18,096	697	18,793	35,110	2,290	37,400
November	16,770	17,785	854	18,639	42,000	2,038	44,038
December	32,676	27,969	2,052	30,021	41,507	1,745	39,757
Total	381,656	343,726	34,628	378,354	596,214	42,312	638,526
1960							
January	40,593	37,497	2,414	39,911	49,498	2,304	51,802
February	34,326	33,742	2,570	36,312	56,569	2,659	59,228

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1954	81,152	551,618	632,770	92,719	475,551
1955	28,855	547,153	639,872	31,089	531,339
1956	.....	613,293	644,382	.....	529,484
1957	.....	604,353	645,534	.....	463,060
1958					
July	163,504	38,827	202,331	164,860	31,948
August	164,860	39,520	204,380	169,302	34,254
September	169,302	43,269	212,571	170,666	41,657
October	170,666	45,467	216,133	169,435	46,647
November	169,435	40,485	209,920	179,321	30,591
December	179,321	44,042	223,363	198,538	24,852
Total	....	522,956	614,554	....	380,359
1959					
January	198,508	43,652	242,160	208,874	33,035
February	208,874	39,498	248,372	214,946	30,685
March	214,946	39,238	254,184	210,524	40,980
April	210,524	40,606	251,130	197,823	52,469
May	197,823	39,101	236,924	171,577	65,207
June	171,577	37,459	209,036	133,235	75,465
July	133,235	32,882	166,117	142,694	22,380
August	142,694	25,589	168,283	124,259	43,850
September	124,259	14,801	139,060	117,296	21,795
October	117,296	18,892	136,188	115,418	20,552
November	115,418	18,796	134,214	114,303	19,869
December	114,303	30,160	144,463	119,993	24,516
Total	....	380,674	579,182	....	450,983
1960					
January	119,993	40,043	160,036	117,589	42,083
February	117,589	36,435	154,024	116,269	37,599

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1955								
Total	72,418	27,599	2,622	88,461	3,960	52,994	13,034	270,251
1956								
Total	80,360	24,501	1,435	70,614	3,158	56,851	13,213	274,716
1957								
Oct.	3,671	3,300	205	5,973	881	4,203	847	21,367
Nov.	2,950	2,500	85	3,126	493	3,800	706	18,533
Dec.	2,499	1,350	36	2,820	270	2,607	529	13,997
Total	58,444	25,452	1,691	64,761	7,420	53,284	11,127	240,881
1958								
Jan.	2,938	550	70	4,775	521	5,173	801	18,594
Feb.	2,899	1,750	70	5,124	90	1,643	888	11,368
Mar.	3,133	1,200	35	4,711	681	3,149	908	15,068
April	3,207	900	70	3,138	580	2,831	533	10,913
May	3,216	1,850	35	4,671	866	3,071	1,027	15,285
June	3,463	1,950	35	2,767	480	4,217	1,716	17,450
July	3,169	1,250	275	3,936	515	4,157	1,052	17,594
Aug.	3,481	2,415	70	4,992	400	6,399	100	16,397
Sept.	4,132	2,290	320	5,775	848	6,771	1,747	19,774
Oct.	3,243	2,450	...	4,548	285	6,210	1,641	28,270
Nov.	3,690	2,150	50	6,527	360	4,887	822	12,105
Dec.	2,267	2,100	50	6,216	215	2,578	652	10,774
Total	38,838	20,855	1,080	57,180	5,841	51,086	11,882	193,592
1959								
Jan.	2,284	2,100	100	5,594	161	3,545	727	18,524
Feb.	2,988	1,225	50	5,254	735	2,706	931	16,796
Mar.	3,156	1,850	105	5,905	378	6,006	2,185	21,395
April	3,686	2,150	35	7,410	691	5,356	1,966	31,355
May	4,054	2,900	35	6,870	475	7,990	2,843	40,040
June	5,272	3,210	70	12,515	180	8,009	3,663	42,546
July	850	295	70	2,570	315	3,166	997	14,117
Aug.	3,268	1,150	205	3,073	410	6,640	1,921	27,183
Sept.	1,003	....	35	3,401	255	2,296	1,484	13,321
Oct.	700	500	35	4,299	228	2,676	1,021	11,093
Nov.	2,630	200	70	3,714	205	2,566	797	9,687
Dec.	2,133	950	70	3,479	475	2,628	738	14,043
Total	32,024	16,530	880	64,084	4,508	53,584	19,273	260,100
1960								
Jan.	2,138	3,352	105	3,268	550	4,786	1,106	26,778
Feb.	2,665	2,350	50	4,930	295	3,715	574	23,020

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	16.00	13.00	12.619	12.00
Feb.	16.00	13.00	11.583	12.00
Mar.	16.00	13.00	11.42	12.00
Apr.	16.00	12.00	11.20	...
May	15.385	11.712	11.905	...
June	14.32	11.24	12.00	...
July	14.00	11.00	12.00	...
Aug.	14.00	10.85	12.286	...
Sept.	14.00	10.89	13.00	...
Oct.	13.704	12.673	13.00	...
Nov.	13.50	13.00	13.00	...
Dec.	13.00	13.00	12.523	...
Aver.	14.66	12.114	12.211	...

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	21.50	18.50	18.119	17.50
Feb.	21.50	18.50	17.083	17.50
Mar.	21.50	18.50	16.92	17.50
Apr.	21.50	17.50	16.70	...
May	20.885	17.212	17.405	...
June	19.82	16.74	17.50	...
July	19.82	16.50	17.50	...
Aug.	19.50	16.35	17.786	...
Sept.	19.50	16.39	18.50	...
Oct.	19.204	18.173	18.50	...
Nov.	19.00	18.50	18.50	...
Dec.	18.50	18.50	18.023	...

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers:

(In thousands of units)

	1957	1958	1959	1960
Jan.	2,638	2,004	2,672	1,866
Feb.	1,961	1,803	1,791	1,640
Mar.	1,254	1,577	1,376	....
Apr.	1,178	1,242	1,437	....
May	1,605	1,454	1,593	....
June	1,878	1,773	2,118	....
July	2,469	2,101	2,556	....
Aug.	2,856	2,333	2,728	....
Sept.	2,688	2,704	2,889	....
Oct.	3,042	2,976	3,069	....
Nov.	2,359	2,262	2,799	....
Dec.	2,015	3,041	2,465	....
Total	25,943	25,270	27,493	....

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	In ore and matte and in process at smelteries	—In base bullion (lead content)— At smelteries & refineries	In transit to refineries	In process at refineries	Refined pig lead	Antimonial lead	Total Stocks
1958							
Jan. 1..	79,362	11,019	2,779	23,154	79,741	11,857	207,912
Feb. 1..	79,738	11,510	3,678	24,535	88,517	12,689	220,667
Mar. 1..	79,588	9,546	3,670	22,834	107,213	12,309	235,250
Apr. 1..	83,185	10,692	2,187	21,766	116,610	12,144	246,584
May 1..	86,053	11,838	2,138	20,524	130,668	12,468	263,689
June 1..	79,482	11,059	2,010	20,188	141,967	13,154	267,860
July 1..	80,060	9,012	1,570	22,092	150,648	12,856	276,238
Aug. 1..	83,347	12,438	860	21,615	154,378	10,482	283,379
Sept. 1.	77,416	14,767	1,176	20,444	158,413	10,889	283,105
Oct. 1..	72,724	14,797	2,223	18,125	159,662	11,004	278,535
Nov. 1..	61,819	11,492	1,086	19,041	157,385	12,050	262,873
Dec. 1..	62,960	11,072	1,565	20,941	167,493	11,828	275,859
1959							
Jan. 1..	72,378	10,917	1,767	19,746	185,913	12,595	303,316
Feb. 1..	72,832	10,565	1,889	21,317	197,085	11,789	315,477
Mar. 1..	62,383	11,707	1,447	21,479	202,835	12,111	311,962
Apr. 1..	68,433	14,352	350	20,575	198,459	12,065	314,234
May 1..	64,538	12,373	624	20,507	184,468	13,355	295,865
June 1..	55,223	12,239	766	20,391	157,981	13,596	260,196
July 1..	58,451	13,270	943	19,468	120,914	12,321	225,367
Aug. 1..	53,115	18,379	158	18,021	129,551	13,143	232,367
Sept. 1.	50,007	17,389	....	15,638	116,344	7,915	207,293
Oct. 1..	61,910	17,925	....	14,932	109,527	7,769	212,063
Nov. 1..	69,429	14,800	...	14,919	107,849	7,569	214,566
Dec. 1..	70,837	12,919	...	15,708	106,678	7,625	213,767
1960							
Jan. 1..	73,381	16,955	3,085	16,914	108,002	11,991	230,328
Feb. 1..	78,315	17,139	1,425	19,003	105,292	12,297	233,471
Mar. 1..	89,656	14,899	1,643	19,360	103,615	12,654	241,827

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	——Receipts of lead in ore—— United States	Foreign	Total	Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
1953 Total	**351,183**	**155,788**	**506,971**	**42,994**	**549,965**
1954 Total	**336,291**	**158,081**	**494,372**	**49,864**	**544,236**
1955 Total	**341,595**	**172,966**	**514,561**	**42,996**	**557,557**
1956 Total	368,499	192,318	560,817	55,925	616,792
1957 Total	356,409	206,901	563,310	42,537	605,847
1958					
January	**25,537**	**22,097**	**47,634**	**3,507**	**51,141**
February	**23,789**	**16,400**	**40,189**	**2,184**	**42,373**
March	**21,735**	**20,038**	**41,773**	**3,154**	**44,927**
April	**25,104**	**15,821**	**40,925**	**1,913**	**42,838**
May	**27,427**	**10,228**	**37,655**	**1,867**	**39,522**
June	**28,577**	**13,811**	**42,388**	**1,366**	**43,754**
July	**22,289**	**19,692**	**41,891**	**1,615**	**43,596**
August	22,984	13,043	36,027	1,252	37,279
September	20,654	14,576	35,230	1,765	36,995
October	18,678	9,093	27,771	3,577	31,348
November	24,024	14,541	38,565	3,933	42,498
December	24,366	18,804	43,170	3,982	47,152
Total	285,164	188,144	473,308	30,115	503,423
1959					
January	24,304	19,449	43,753	3,138	46,891
February	22,253	8,660	30,913	1,747	32,660
March	21,897	21,012	42,909	1,328	44,237
April	22,339	10,998	33 337	1,196	34,533
May	21,645	5,202	26,847	1,930	28,777
June	23,634	12,368	36,002	2,431	38,433
July	19,165	11,695	30,860	2,199	33,059
August	19,971	2,821	22,792	1,009	23,801
September	13,591	3,465	17,056	32	17,088
October	14,740	3,648	18,388	133	18,521
November	13,808	4,582	18,390	133	18,523
December	21,208	20,977	42,185	5,269	47,454
Total	238,555	124,877	363,432	20,545	383,977
1960					
January	20,531	26,307	46,838	1,762	48,600
February	23,700	15,541	39,241	2,131	41,372

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

N. Y. Lead Price Changes

(Effective Date)

1951		Apr. 12	14.00
Oct. 2	**19.00	June 2	14.25
1952		June 15	14.00
Apr. 29	18.00	Aug. 25	14.25
May 2	17.00	Sept. 7	14.50
May 12	15.00	Sept. 15	14.75
June 23	15.50	Oct. 4	14.875
June 24	16.00	Oct. 5	15.00
Oct. 7	15.00	1955	
Oct. 14	14.00	Sept. 23	15.00-15.50
Oct. 22	13.50	Sept. 26	15.50
Nov. 3	14.00	Dec. 29	16.00
Nov. 10	14.25	1956	
Nov. 11	14.50	Jan. 4	16.50
Nov. 20	14.25	Jan. 13	16.00
Nov. 24	14.00	1957	
Dec. 22	14.25	May 9	15.50
Dec. 29	14.50	May 16	15.00
Dec. 31	14.75	June 11	14.00
1953		Oct. 14	13.50
Jan. 7	14.50	Dec. 2	13.00
Jan. 12	14.00	1958	
Feb. 2	13.50	Apr. 1	12.00
Mar. 4	13.00	May 14	11.50
Mar. 10	13.50	June 3	11.00
Apr. 7	13.00	June 18	11.50
Apr. 16	12.50	July 1	11.00
Apr. 21	12.00	Aug. 13	10.75
Apr. 29	12.50	Sept. 17	11.00
May 18	12.75	Sept. 30	11.50
May 19	13.00	Oct. 2	12.00
May 26	13.15	Oct. 8	12.50
June 11	13.50	Oct. 14	13.00
July 20	13.75	1959	
July 23	14.00	Jan. 21	12.00
Sept. 16	13.50	Feb. 11	11.50
1954		Feb. 24	11.00
Jan. 18	13.00	Mar. 5	11.50
Feb. 18	12.50	April 1	11.00
Mar. 9	12.75	April 20	11.50
Mar. 10	13.00	May 7	12.00
Mar. 26	13.25	Aug. 24	13.00
Mar. 29	13.50	Dec. 14	12.50
Apr. 1	13.75	Dec. 21	12.00

**OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A.B.M.S.)

(In tons of 2,000 pounds)

End of	1957	1958	1959	1960
Jan.	10,487	12,689	11,789	12,297
Feb.	10,220	12,309	12,111	12,654
Mar.	9,794	12,144	12,065	....
Apr.	9,391	12,468	13,355	....
May	9,799	13,154	13,596	....
June	9,503	12,856	12,321	....
July	8,661	10,482	13,143	....
Aug.	9,553	10,889	7,915	....
Sept.	10,215	11,004	7,769	....
Oct.	11,581	12,050	7,569	....
Nov.	11,119	11,828	7,625	....
Dec.	11,857	12,595	11,991	....

Antimonial Lead Production by Primary Refineries

(A.B.M.S.)

(In tons of 2,000 pounds)

End of	1957	1958	1959	1960
Jan.	5,114	3,743	3,541	2,538
Feb.	5,468	3,657	4,415	2,694
Mar.	5,091	3,527	4,098	....
Apr.	6,183	3,655	5,533	....
May	6,978	4,827	4,618	....
June	4,466	3,992	5,671	....
July	5,372	2,775	2,784	....
Aug.	7,967	5,244	2,185	....
Sept.	7,574	4,761	102	....
Oct.	6,148	5,849	886	....
Nov.	3,791	3,913	1,324	....
Dec.	3,290	4,539	2,656	....
Total	**67,541**	**50,482**	**37,813**	....

Lead Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	1959 Nov.	1959 Dec.	1960 Jan.
IMPORTS			
U. S.* (s.t.)	20,647	11,866	19,854
Canada (s.t.)	1	...	...
Belgium	2,058	...	...
Denmark	289	3,740	...
France	3,129	5,437	3,200
Germany, W.‡	6,199	...	...
Italy**	858	...	...
Netherlands	2,676	4,073	...
Norway	1,899	...	...
Sweden	452	1,137	...
Switzerland	1,419	2,151	...
U. K. (l.t.)	7,551	18,487	13,062
India† (l.t.)	2,390	2,341	...
EXPORTS			
U. S.* (s.t.)	45	82	13
Canada (s.t.)	6,785	10,218	5,549
Belgium	3,640	...	...
Denmark	522	155	...
France	726	746	674
Germany, W.‡	1,935	...	...
Italy**	25	...	...
Netherlands	560	381	...
Sweden	1,600	2,475	...
Switzerland	20	27	...
Northern Rhodesia† (l.t.)	508	1,576	985
Australia (l.t.)	14,212	8,240	12,118

* Refined.
** Includes lead alloys.
† British Bureau of Non-Ferrous Metal Statistics.
‡ Includes scrap.

French Lead Imports

(A. B. M. S.)

(In metric tons)

	1959 Dec.	1960 Jan.	1960 Feb.
Ore (gross weight)	6,580	5,677	13,151
Algeria	...	714	662
Morocco	5,580	4,963	11,439
Fr. Eq. Africa	1,000	...	...
Other countries	...	...	1,050
Pig lead	5,437	3,200	6,049
Belgium	1,151	682	2,052
Germany (W.)	37	44	1,075
Spain	...	100	29
Algeria	...	308	215
Morocco	2,437	1,304	2,166
Tunisia	1,808	482	231
Australia	...	280	280
Other countries	4	...	1
Antimonial lead	...	102	150

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1959 Dec.	1960 Jan.	1960 Feb.
(Gross Weight)			
Lead and lead alloys	18,487	13,062	13,052
Australia	14,519	7,955	8,618
Canada	3,157	2,816	2,056
Yugoslavia	100	150	300
Peru	100	100	250
Other countries	611	2,041	1,828

IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER

U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

Metal Products:	1959 Preliminary totals	1959 Dec.	1960 Jan.
Ammunition	45,331	4,020	3,168
Bearing metals	22,559	1,804	2,034
Brass and bronze	23,745	1,816	1,974
Cable covering	61,833	5,816	5,172
Calking lead	76,257	4,922	5,355
Casting metals	7,766	669	609
Collapsible tubes	8,611	555	570
Foil	3,709	227	374
Pipes, traps & bends	22,827	1,923	1,781
Sheet lead	27,153	2,168	2,013
Solder	65,760	4,564	5,005
Storage battery grids, posts, etc.	182,394	15,038	14,685
Storage battery oxides	178,720	15,182	14,942
Terne metal	1,518	103	152
Type metal	26,246	2,173	2,202
Total	**754,429**	**60,980**	**60,036**
Pigments:			
White lead	11,078	691	218
Red lead and litharge	81,935	6,625	7,143
Pigment colors	13,827	1,029	980
Other*	4,372	180	160
Total	**111,212**	**8,525**	**8,501**
Chemicals:			
Tetraethyl lead	160,020	11,234	13,938
Misc. chemicals	3,847	294	31
Total	**163,867**	**11,528**	**13,969**
Miscellaneous uses:			
Annealing	4,265	485	453
Galvanizing	979	140	187
Lead plating	158	5	6
Weights and ballast	6,978	423	526
Total	**12,380**	**1,053**	**1,172**
Other uses classified	17,189	1,603	1,586
Total reported‡	**1,059,077**	**83,689**	**85,264**
Estimated unreported consumption	24,000	2,000	2,000
Grand total‡	**1,083,100**	**85,700**	**87,300**
Daily average†	**2,967**	**2,765**	**2,816**

* Includes lead content of leaded zinc oxide production.
‡ Includes lead content of scrap used directly in fabricated products.
† Based on number of days in month without adjustment for Sundays and holidays.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1958	1959	1960
Jan.	29,607	28,872	31,745
Feb.	27,855	25,968	30,241
Mar.	29,713	26,691	...
Apr.	26,230	29,252	...
May	28,839	27,280	...
June	28,624	30,099	...
July	27,201	26,851	...
Aug.	21,726	25,358	...
Sept.	28,829	30,255	...
Oct.	31,356	32,926	...
Nov.	27,786	32,579	...
Dec.	27,154	31,772	...
Total	*335,920*	*345,903*	

American Antimony

Monthly Average Prices
In bulk, f.o.b. Laredo
(Cents per lb. in ton lots)

	1957	1958	1959	1960
Jan.	33.00	33.00	29.00	29.00
Feb.	33.00	30.818	29.00	29.00
Mar.	33.00	29.00	29.00	29.00
Apr.	33.00	29.00	29.00	...
May	33.00	29.00	29.00	...
June	33.00	29.00	29.00	...
July	33.00	29.00	29.00	...
Aug.	33.00	29.00	29.00	...
Sept.	33.00	29.00	29.00	...
Oct.	33.00	29.00	29.00	...
Nov.	33.00	29.00	29.00	...
Dec.	33.00	29.00	29.00	...
Aver.	**33.00**	**29.485**	**29.00**	...

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Dec. 31, 1959 Stocks	In Jan. Net Receipts	In Jan. Consumed	Stocks 1960 Jan. 31,
Soft lead	*77,911	53,205	56,217	74,899
Antimonial lead	637,953	21,247	20,593	38,607
Lead in alloys	* 6,185	3,304	3,498	5,991
Lead in copper-base scrap	1,083	1,444	1,562	965
Total	*123,132	79,200	†81,870	120,462

* Revised.
† Excludes 3,275 tons of lead which went directly from scrap to fabricated products and 119 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

JANUARY

	Soft lead	Antimonial lead	Lead in alloys	Lead in copper-base scrap	Total
Metal products	31,657	20,117	3,482	1,562	56,818
Pigments	8,376	6	....	....	8,382
Chemicals	13,968	1	....	....	13,969
Miscellaneous	733	439	....	....	1,172
Unclassified	1,483	30	16	....	1,529
Total	56,217	20,593	3,498	1,562	†81,870

† Excludes 3,275 tons of lead which went directly from scrap to fabricated products and 119 tons of lead contained in leaded zinc oxide production.

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.

(Tons of 2,000 lbs.)

	Stock Beginning	Production	Shipments: Domestic	Export & Drawback	Gov't Acc't	Total	Stock at End	Daily Avg. Prod.
1950 Tl.	94,221	910,354	849,246	18,189	128,256	995,691	8,884	2,494
1950 Mo. Avg.		75,863	70,770	1,516	10,688	82,974		
1951 Total	8,884	931,833	836,800	42,067	39,949	918,816	21,901	2,553
1951 Mo. Avg.		77,653	69,733	3,506	3,329	76,568		
1952 Total	21,901	961,430	803,343	56,202	36,626	896,171	87,160	2,627
1952 Mo. Avg.		80,119	66,945	4,683	3,052	74,681		
1953 Total	87,160	971,191	818,850	16,326	42,332	877,508	180,843	2,661
1953 Mo. Avg.		80,933	68,238	1,361	3,528	73,126		
1954 Total	180,843	868,242	787,922	27,929	108,957	924,808	124,277	2,379
1954 Mo. Avg.		72,353	65,660	2,327	9,080	77,067		
1955 Total	40,979	1,031,018	1,007,619	19,497	87,200	1,114,316	40,979	2,825
1955 Mo. Avg.		85,918	83,968	1,625	7,267	92,860		
1956 Total		1,062,954	869,270	9,027	157,014	1,035,311	68,622	2,904
1956 Mo. Avg.		88,850	72,439	752	13,085	86,275		
1957 Total		1,067,450	765,132	15,460	179,466	815,567		
1958								
March	189,189	72,274	48,948	111	8,763	57,822	203,641	2,331
April	203,641	70,214	46,598	159	5,927	52,684	221,171	2,340
May	221,171	71,018	51,390	129	....	51,519	240,670	2,291
June	240,670	66,967	54,487	171	....	54,658	252,979	2,232
July	252,979	65,119	60,312	55	....	60,187	257,911	2,101
August	257,911	62,927	68,718	591	....	69,309	251,529	2,030
September	251,529	63,705	76,905	213	....	77,118	238,116	2,124
October	238,116	65,304	93,018	226	....	93,224	210,176	2,107
November	210,176	65,174	83,394	212	....	83,606	191,744	2,172
December	191,744	75,503	76,862	148	....	77,010	190,237	2,432
1958 Total		828,902	767,755	3,102	34,488	805,325	....	....
1959								
January	190,237	76,481	70,770	171	....	70,941	195,777	2,467
February	195,777	71,174	65,641	849	....	66,490	200,461	2,542
March	200,461	79,918	73,814	482	....	74,296	206,083	2,578
April	206,083	76,393	78,358	255	....	78,613	203,863	2,546
May	203,863	77,489	85,073	275	....	85,348	196,004	2,500
June	196,004	75,544	99,858*	204	2,100	102,162	169,386	2,518
July	169,386	73,101	59,460	94	900	60,454	182,033	2,358
August	182,033	69,768	58,918	864	....	59,782	192,019	2,251
September	192,019	62,202	57,971	3,214	....	61,185	193,036	2,073
October	193,036	63,938	63,910	1,813	....	65,723	191,251	2,063
November	191,251	62,346	74,596	2,844	....	77,440	176,157	2,078
December	176,157	69,666	84,498	6,906	....	91,404	154,419	2,247
1959 Total		858,020	872,867	17,971	3,000	893,838	....	....
1960								
January	154,419	73,326	79,325	3,949	....	83,274	144,471	2,365
February	144,471	74,738	78,029	4,118	....	82,147	137,062	2,577
March	137,062	86,028	80,760	5,764	....	86,524	136,566	2,775

* Inflated by abnormal shipments on consignment of approximately 9,000 tons.

U. S. Consumption of Slab Zinc

Bureau of Mines

By Industries (Short Tons)

	Galvanizers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953 Total	403,162	305,846	177,801	53 784	38,037	977,636
1954 Total	398,599	286,817	107,293	45,979	33,342	876,130
1955 Total	439,694	404,790	144,816	50,363	39,302	1,081,468
1956 Total	421,218	352,451	122,395	45,382	36,251	983,097
1957 Total	355,796	358,543	111,114	39,544	20,486	924,063
1958						
January	26,861	26,348	9,115	3,183	1,664	69,295
February	24,598	22,629	7,279	2,716	1,316	60,347
March	27,171	19,045	6,871	3,138	1,724	59,978
April	27,464	17,829	6,392	3,259	1,295	58,432
May	30,935	18,316	6,597	2,896	2,263	61,907
June	34,377	21,497	6,643	2,961	2,212	67,690
July	30,677	17,387	6,275	2,848	1,920	60,007
August	34,663	20,382	8,358	3,379	1,901	70,033
September	34,048	25,188	9,624	3,458	770	74,122
October	36,513	27,682	11,753	3,845	881	81,919
November	31,658	27.311	10,067	3,276	826	74,302
December	31,746	29,926	10,529	3,681	1,018	78,082
Total	370,441	273,540	92,906	38,690	16,772	737,942
1959						
January	31,729	29,110	11,172	3,874	2,521	79,506
February	31,672	26,448	11,508	3,418	2,864	77,010
March	37,287	29,286	12,889	3,629	3,203	87,394
April	38,541	31,262	12,304	3,715	3,223	90,145
May	38,788	29,169	12,015	3,316	3,305	88,093
June	40,531	36,269	10,764	3,801	3,120	95,985
July	23,700	28,120	7,558	2,509	2,042	65,429
August	13,763	29.803	10.064	3.160	2.161	60.451
September	13,181	31,463	10,842	3,322	2,237	62,545
October	13,582	35,473	10,543	3.272	2,487	66,857
November	25,456	29,351	8,858	3,411	2,523	71,099
December	38,418	34,576	8,704	3,152	2,936	89,286
Total	346,648	370,330	127,221	40,759	22,622	933,800
1960						
January	38,389	31,813	9,838	3,130	3,352	88,122

Prime Western Zinc Prices

(East St. Louis, f.o.b.)

(Cents Per Pound)

(In tons of 2,240 pounds)

	1957	1958	1959	1960
Jan.	13.50	10.00	11.50	12.90
Feb.	13.50	10.00	11.411	13.00
Mar.	13.50	10.00	11.00	13.00
Apr.	13.50	10.00	11.00	...
May	11.933	10.00	11.00	...
June	10.84	10.00	11.00	...
July	10.00	10.00	11.00	...
Aug.	10.00	10.00	11.00	...
Sept.	10.00	10.00	11.381	...
Oct.	10.00	10.865	12.233	...
Nov.	10.00	11.386	12.50	...
Dec.	10.00	11.50	12.50	...
Aver.	11.40	10.313	11.46	...

High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

(Cents Per Pound)

	1957	1958	1959	1960
Jan.	14.85	11.35	12.50	14.244
Feb.	14.85	11.35	12.411	14.25
Mar.	14.85	11.35	12.00	14.25
Apr.	14.85	11.084	12.00	...
May	13.283	11.00	12.00	...
June	12.19	11.00	12.00	...
July	11.35	11.00	12.00	...
Aug.	11.35	11.00	12.006	...
Sept.	11.35	11.00	12.625	..
Oct.	11.35	11.865	13.483	...
Nov.	11.35	12.380	13.75	...
Dec.	11.35	12.50	13.75	...
Aver.	12.75	11.407	12.544	...

U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In Tons of 2,240 Pounds)

	1958	1959	1960
Jan.	27,473	27,849	30,637
Feb.	24,551	25,676	30,480
Mar.	26,967	27,243	...
Apr.	24,984	28,006	...
May	24,579	26,167	...
June	25,587	30,221	...
July	23,794	26,318	...
Aug.	19,076	21,566	...
Sept.	26,747	31,270	...
Oct.	29,838	30,686	...
Nov.	26,432	29,221	...
Dec.	26,042	30,829	...
Total	306,070	335,890	...

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DAILY METAL REPORTER

Mine Production of Zinc in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1954				
Total	166,487	63,100	234,942	464,539
1955				
Total	163,230	73,630	277,811	514,671
1956				
Total	175,310	61,080	301,253	537,643
1957				
Total	196,877	29,501	290,151	520,128
1958				
Oct.	**16,197**	——	**16,074**	**32,271**
Nov.	15,393	——	16,998	32,391
Dec.	15,064	——	16,939	32,003
Total	180,373	10,050	221,582	412,005
1959				
Jan.	16,446	——	19,114	35,560
Feb.	16,881	——	19,292	36,104
Mar.	18,266	——	18,817	37,183
Apr.	19,198	——	19,132	38,330
May	19,150	——	19,201	38,351
June	18,217	——	18,447	36,664
July	13,158	——	18,656	31,814
Aug.	14,410	140	16,661	31,211
Sept.	14,226	154	15,026	29,406
Oct.	15,608	200	15,979	31,487
Nov.	18,285	200	15,698	34,183
Dec.	19,609	106	15,757	35,472
Total	204,384	800	211,781	416,965
1960				
Jan.	20,962	226	15,795	36,983
Feb.	21,001	195	16,792	37,988

*Includes Alaskan output in some months.

Mine Production of Lead in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Ttl.	8,608	138,940	169,804	317,352
1955				
Ttl.	10,379	145,640	177,409	333,409
1956				
Ttl.	11,395	141,900	195,034	348,329
1957				
Ttl.	9,300	135,800	188,392	333,493
1958				
Nov.	606	10,500	11,823	22,929
Dec.	565	9,600	11,699	21,865
Ttl.	6,439	118,114	142,824	267,377
1959				
Jan.	549	9,748	12,239	23,536
Feb.	611	8,457	12,314	21,382
Mar.	601	7,943	12,426	20,970
Apr.	454	8,103	12,684	21,241
May	412	7,253	12,509	20,174
June	458	8,185	12,764	21,407
July	369	8,190	11,010	19,569
Aug.	353	9,762	11,735	21,850
Sept.	510	9,698	10,328	20,536
Oct.	548	10,012	10,755	21,315
Nov.	620	9,350	10,954	20,924
Dec.	550	8,734	10,572	19,856
Ttl.	6,535	105,435	141,290	253,260
1960				
Jan.	535	9,035	11,235	20,805
Feb.	555	9,611	12,250	22,416

Mine Production of Gold in United States

(U. S. Bureau of Mines)

(In fine ounces)

	Eastern States	Western States	Alaska*	Total
1955				
Ttl.	2,026	1,634,625	247,535	1,884,186
1956				
Ttl.	1,998	1,607,930	204,300	1,814,228
1957				
Ttl.	2,174	1,556,450	210,000	1,768,624
1958				
Oct.	**186**	**135,882**	**42,467**	**178,535**
Nov.	—	——	——	——
Dec.	—	——	10,373	144,757
1959				
Jan.	—	——	——	143,374
Feb.	—	——	——	128,932
Mar.	—	——	537	135,934
Apr.	—	——	2,956	141,777
May	—	——	9,719	157,338
June	—	——	23,792	163,057
July	—	——	33,324	171,749
Aug.	—	——	37,534	146,907
Sept.	—	——	30,886	114,364
Oct.	—	——	29,349	117,314
Nov.	—	——	2,903	91,175
Dec.	—	——	17,294	106,525
Ttl.	—	——	188,294	1,618,446
1960				
Jan.	—	——	2,460	——

* Alaska totals based on mint and smelter receipts.

Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

(In Fine Ounces)

	Eastern States	Missouri	Western States	Alaska*	Total
1957 Total	610,386	240,000	37,018,950	26,000	37,895,336
1958					
November	†	16,000	†	3,175	2,720,577
December	†	13,730	†	675	2,682,299
Total	†	210,000	†	28,000	33,022,225
1959					
January	†	21,000	†	....	2,868,648
February	†	18,060	†	....	2,908,630
March	†	17,200	†	67	2,982,254
April	†	17,600	†	421	2,963,775
May	†	15,900	†	1,201	3,046,085
June	†	17,900	†	2,953	2,926,886
July	†	8,900	†	4,149	2,905,320
August	†	10,600	†	5,523	2,291,540
September	†	10,400	†	3,224	1,794,029
October	†	10,900	†	3,793	1,952,629
November	†	10,400	†	469	1,874,624
December	†	10,140	†	2,334	1,825,198
Total	†	169,000	†	24,134	30,349,334
1960					
January	†	18,300	†	321	1,962,523

† Figures not available. * Alaska totals based on mint and smelter receipts.

U. S. Silver Production*

(A.B.M.S.)

(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)

	Dom.†	For.	Total
1954 Total	38,059	39,422	77,481
1955 Total	33,101	32,780	65,881
1956 Total	38,157	40,160	78,317
1957 Total	36,279	34,932	71,211
1958			
October ...	3,831	2,750	6,581
November .	2,505	3,283	5,788
December ..	3,275	3,652	7,236
Total	35,691	37,572	73,263
1959			
January ...	2,330	4,460	6,790
February ..	2,827	2,913	5,740
March ...	2,823	4,087	6,910
April	2,946	3,233	6,179
May	2,641	3,484	6,125
June	3,219	3,231	6,450
July	2,609	3,284	5,893
August	1,472	1,229	2,701
September ..	390	577	967
October ...	510	610	1,120
November .	635	602	1,237
December ..	756	4,311	5,067
Total	23,158	32,021	55,179
1960			
January	3,327	2,830	6,157
February ...	3,454	3,496	6,950

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Production of Primary Aluminum in the U. S.

(U. S. Bureau of Mines)

(In short tons)

	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	89,895	116,247	128,203	140,394	147,029	139,910	156,708	164,024
Feb.	92,649	110,483	116,236	132,763	119,059	121,980	142,116	156,826
Mar	104,460	122,339	130,272	145,895	135,706	134,019	157,189	170,658
Apr.	102,071	120,434	126,394	144,726	139,152	128,559	155,213	....
May	105,464	125,138	131,128	150,800	145,174	129,083	163,857	....
June	104,152	120,758	127,634	145,726	138,007	115,325	167,323	....
July	109,285	126,161	132,669	151,624	142,157	118,811	179,594	....
Aug.	110,545	125,296	133,551	92,406	143,449	125,416	172,817	....
Sept.	109,333	120,332	130,606	132,316	129,278	124,713	168,205	....
Oct.	108,219	125,089	134,655	149,125	133,759	139,847	173,762	....
Nov.	105,636	121,252	133,689	145,081	135,024	140,962	153,666	....
Dec.	110,291	127,056	140,748	148,391	140,033	153,301	162,996	....
Ttl.	1,252,013	1,460,565	1,565,721	1,679,427	1,647,710	1,655,556	1,953,019	....

Average Silver Prices

(Cents per fine ounce)

	1957	1958	1959	1960
Jan.	91.375	89.449	90.19	91.375
Feb.	91.375	88.625	90.444	91.375
Mar.	91.375	88.625	91.351	91.375
Apr.	91.375	88.625	91.375	...
May	91.307	88.625	91.375	...
June	90.456	88.625	91.375	...
July	90.31	88.625	91.375	...
Aug.	90.909	88.625	91.399	...
Sept.	90.602	88.673	91.399	...
Oct.	90.625	89.966	91.375	...
Nov.	90.382	90.125	91.375	...
Dec.	89.80	89.932	91.375	...
Aver.	**90.824**	**89.043**	**91.226**	...

Note — The averages are based on the price of refined bullion imported on or after August 31, 1943.

U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Ore, matte, etc. (cont.)	13,088	12,312	15,157
Canada	2,285	3,141	3,474
Mexico	....	9	217
Honduras	....	850	600
Argentina	53	....	....
Bolivia	397	1,223	474
Colombia	210	200	....
Peru	3,622	4,274	2,619
Union of S. Africa	3,955	....	4,475
Australia	2,508	2,615	3,200
Philippines	12	....	49
Korea	25	....	....
Other countries	21	....	49
Base bullion (content)	....	....	12
Peru	....	....	12
Pigs and bars	20,647	11,866	19,854
Canada	1,742	3,906	1,957
Mexico	4,401	2,056	7,653
Peru	2,149	2,463	1,211
Belgium	....	....	323
Denmark	....	168	....
Spain	....	733	....
Sweden	560	1,120	....
Yugoslavia	5,174	100	....
Rhodesia & Nyasaland	703	349	....
Australia	5,918	971	8,710
Total Imports:			
Ore, base bullion, ref.	33,735	24,178	35,023
Lead scrap, dross, etc. (content)	257	597	385
Antimonial lead & typemetal	1,128	915	272
Lead content thereof	1,081	861	224

U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Ore, matte & regulus (content)	3,381	5,226	7,246
Canada	24	896	3,710
Cuba	....	2,074	....
Argentina	106	....	7
Bolivia	....	236	13
Chile	985	1,766	1,140
Peru	670	121	1,059
Philippines	1	....	....
Union of S. Africa	1,540	....	1,030
Australia	42	131	285
Other countries	13	2	2
Blister copper (cont.)	20,417	34,528	21,507
Mexico	....	1,032	....
Chile	17,639	28,370	17,925
Peru	....	1,243	1,765
Union of S. Africa	2,774	3,883	1,220
Turkey	....	....	547
Other countries	4	....	50
Refined cathodes and shapes	43,713	40,200	34,120
Canada	17,508	17,473	12,556
Mexico	1,753	1,305	551
Chile	2,000	2,910	2,235
Peru	1,550	2,319	3,078
Belgium	1,784	2,579	1,384
Germany (West)	9,194	6,168	4,521
Sweden	2,063	142	1,717
United Kingdom	1,684	3,088	391
Belgian Congo	56	340	196
Rhodesia & Nyasaland	4,916	3,493	1,610
Union of S. Africa	840	112	....
Other countries	365	301	*5,881
Total Imports:			
Crude and refined	67,511	79,954	62,873
Old and scrap (cont.)	1,006	514	704
Composition metal (content)	210	29	96
Brass scrap and old (cu. content)	258	156	128

* Includes 150 tons from Norway, 888 from Finland, 2,756 from Spain and 1,001 from Australia.

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Zinc ore (content)	37,847	30,278	36,012
Canada	10,864	11,153	10,709
Mexico	14,358	7,093	14,324
Cuba	....	78	....
Honduras	....	68	775
Bolivia	618	98	15
Colombia	42	11	....
Peru	8,472	5,847	5,255
Italy	....	5,335	....
Spain	3,002	....	3,870
Union of S. Africa	....	....	499
Australia	378	595	438
Philippines	2	....	3
Other countries	111	....	124
Zinc blocks, pigs, etc.	11,045	10,736	8,955
Canada	8,224	6,068	6,386
Mexico	....	353	384
Peru	850	802	351
Austria	220	....	....
Belgium	....	84	552
Italy	422	783	779
Yugoslavia	....	441	110
Belgian Congo	461	2,205	55
Rhodesia & Nyasaland	457	....	338
Australia	411	....	....
Total Imports:			
Zinc ore,, blocks, pigs	48,892	41,014	44,967
Dross and skimmings	66	120	42
Old and worn out	57	....	12

U. S. Copper Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Ore, concentrates, matte and other unrefined (content)	231	95	53
Refined ingots, bars, etc.*	2,309	5,146	11,337
Canada	202	221	221
Brazil	22	....	397
Belgium	55	51	25
Denmark	....	....	112
France	121	335	1,746
Germany (West)	1,229	2,271	3,491
Italy	114	44	845
Netherlands	140	503	279
Norway	....	....	280
Sweden	....	112	....
Switzerland	16	20	47
United Kingdom	174	576	1,721
Japan	229	1,001	2,173
Other countries	7	12	....
Total Exports:			
Crude and refined	2,540	5,241	11,390
Pipes and tubes	57	47	14
Plates and sheets	24	34	33
Semifabricated forms	469	625	325
Wire, bare	114	391	162
Building wire and cable†	96	97	72
Weatherproof wire†	1	4	3
Insulated copper wire n.e.s.†	1,751	1,437	926

* Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper. † Gross weight; n.e.s. — Not elsewhere specified.

Comparative Metal Prices

	Av. 1939	OPA Av. 1946	1959 Apr. 20
Copper, domestic Electro., Del. Val.	11.20	14.375	33.00
Lead (N. Y.)	5.05	8.25	12.00
P. W. Zinc (E. St. Louis, f.o.b.)	5.05	5.05	13.00
New York, del.	...	...	13.50
Tin Spot Straits, N. Y.	...	...	99.875
Aluminum ingot 99½%+	20.00	15.00	28.10
Antimony (R.M.M. brand f.o.b. Laredo)	12.36	14.50	29.00

U. S. Copper Scrap Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Copper scrap, unalloyed* (new and old)	1,278	1,970	2,282
Canada	51	....	181
Belgium	....	....	11
Germany (West)	526	191	217
Italy	66	83	189
Portugal	....	106	28
Yugoslavia	168	716	1,005
India	11	2	51
Japan	402	872	600
Other countries	54	....	....
Copper-base scrap alloyed† (new and old)	1,178	3,311	3,374
Canada	4	2	....
Mexico	....	1	3
France	....	....	60
Germany (West)	341	303	265
Italy	22	74	52
Netherlands	....	....	20
Switzerland	....	56	14
United Kingdom	....	....	30
India	....	8	110
Japan	716	2,808	2,783
Hong Kong	45	....	15
Other countries	50	59	22

* Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap. †Copper-base alloys, including brass and bronze — Ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

U. S. Zinc Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	Nov. 1959	Dec. 1959	Jan. 1960
Slabs, blocks, etc.	2,846	2,338	5,608
Mexico	39	187	341
Cuba	....	59	50
Argentina	43	....	....
Brazil	19	....	102
Chile	....	11	....
Netherlands	....	....	112
Sweden	1,679	....	....
United Kingdom	789	2,016	3,361
Korea	....	....	4
India	....	45	1,517
New Zealand	280	....	....
Other countries	2	20	121
Total Exports:			
Ore, conc., slabs, blocks	2,846	2,338	5,608
Scrap, ashes, dross and skimmings	853	1,346	966
Rolled in sheets, plates and strips and die castings	300	294	187
Zinc and zinc alloys in crude and semifabricated forms	63	146	95
Zinc oxide	311	165	153

U. S. Lead Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1959 — Nov.	Dec.	1960 Jan.
Lead, ore, concentrates, matte and base bullion (content)	..	7	20
Canada	..	..	16
Mexico	..	7	4
Pigs and bars	45	82	13
Canada	1	..	..
Mexico	..	..	7
Guatemala	26	..	..
Chile	..	..	2
Venezuela	1	..	..
Philippines	..	67	4
Japan	..	5	..
Other countries	17	10	..
Total Exports:			
Ore, base bullion, refined..	45	89	33
Scrap	210	118	163
Lead plate, including battery plate, not assembled as complete battery units	3	..	21
Babbitt metal	10	12	12
Lead and lead base alloys in semifabricated forms	64	22	24

World Production of Copper

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Canada (b)	Mexico (crude) (c)	Chile (d)	Peru (d)	Fed. Rep. of Germany (e)	Norway (f)	United Kingdom (g-h)	Yugoslavia (e)	India (f-h)	Japan (e)	Turkey (f)	Australia (e)	Northern Rhodesia (e)	Union of South Africa (d)
1955															
Total	1,036,702	326,599	61,583	447,288	35,478	286,805	14,876	138,271	31,151	8,432	124,908	26,313	41,935	350,302	47,176
1956															
Total	1,133,134	356,251	69,918	506,251	35,005	279,461	16,457	127,365	32,390	8,827	139,062	27,101	55,711	435,186	47,914
1957															
Total	1,115,483	360,745	42,905	....	46,141	255,710	17,265	121,799	37,186	9,298	143,654	27,101	55,633	499,418	47,828
1958															
Oct.	92,214	22,572	5,380	47,230	2,950	27,635	1,618	11,225	3,616	809	13,310	....	....	....	4,749
Nov.	96,369	20,368	5,040	46,310	3,923	24,932	1,594	8,542	3,462	774	11,764	....	....	25,612	4,249
Dec.	97,641	19,023	5,066	46,284	3,196	25,569	1,597	9,042	2,929	832	15,054	....	....	45,935	4,406
Total	1,881,170	346,816	68,386	462,064	42,750	295,312	19,529	106,134	37,116	9,062	136,612	24,676	72,361	426,513	53,090
1959															
Jan.	95,542	24,669	5,342	44,579	3,115	25,945	1,724	7,356	3,685	679	17,385	2,469	5,349	48,699	4,600
Feb.	88,432	28,016	4,810	43,589	1,627	24,289	1,599	9,211	3,521	557	11,388	1,614	5,930	44,420	4,339
Mar.	101,410	32,427	4,771	44,554	1,601	26,959	1,694	8 654	3,536	810	10,746	2,034	4,573	51,630	4,611
April	98,376	32,130	5,201	42,715	4,250	26,859	1,870	11 259	3,593	763	17,938	2,320	7,419	48,150	4,528
May	104,236	32,622	5,275	46,083	3,770	25,358	1,771	7,693	3,503	764	18,516	2,480	6,408	53,067	4,676
June	99,419	36,979	5,847	46,901	3,357	24,635	1,743	10,909	3,231	776	18,621	2,362	8,133	53,895	4,766
July	81,662	36,067	5,755	45,508	3,676	25,890	1,639	7,108	3,369	781	18,957	1,846	5,346	48,806	4,541
Aug.	51,327	35,045	5,326	50,093	2,533	24,716	1,677	6,610	1,810	774	18,805	2,378	5,798	50,285	4,357
Sept.	19,503	35,740	4,125	44,439	8,782	25,357	1,986	10,438	3,619	799	18,837	2,427	7,111	48,753	3,742
Oct.	20,931	35,980	4,068	36,449	3,061	27,840	1,800	8,951	3,137	804	18,898	2,304	....	49,519	3,025
Nov.	18,351	35,271	4,886	50,877	2,904	25,258	1,495	10,076	3,451	802	17,186	2,923	....	49,232	5,005
Dec.	26,686	34,416	4,872	53,186	3,438	28,143	2,035	8,736	....	421	20,498	....	....	48,350	5,244
1960															
Jan.	65,677	36,404	4,326	....	2,901	27,112	....	....	....	....	....	....	....	56,495	....
Feb.	87,976	....	4,817	....	3,579	....	....	....	....	....	....	....	....	47,322	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake." Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. * Refined.

World Production of Refined Lead

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugoslavia	Japan	Australia (a)	French Morocco	Tunisia	Rhodesia	Total
1955																
Total	547,153	148,811	221,138	67,303	91,241	73,251	162,508	46,806	67,509	83,347	40,912	254,558	28,870	28,620	17,976	1,893,125
1956																
Total	613,293	147,865	213,524	61,917	111,479	73,251	178,713	42,780	64,824	83,507	51,019	256,300	30,993	26,623	17,024	1,984,344
1957																
Total	604,533	142,935	218,266	55,971	....	94,509	195,136	42,336	61,332	85,313	59,670	261,035	34,442	27,069	12,364	2,041,530
1958																
Oct.	45,467	12,598	11,968	5,074	7,940	9,308	17,130	4,639	7,121	9,242	3,522	22,482	3,560	2,410	1,176	164,818
Nov.	40,486	10,645	17,067	6,448	9,495	9,068	17,785	4,825	6,914	11,155	3,555	20,148	2,625	2,519	1,120	165,406
Dec.	44,042	11,076	20,902	5,344	10,342	10,351	18,370	5,101	7,069	11,212	3,769	21,492	4,002	2,779	1,120	179,309
Total	575,612	130,886	246,443	80,999	119,192	111,337	223,973	60,860	77,490	92,903	52,915	271,654	42,266	32,359	16,492	1,955,753
1959																
Jan.	43,662	14,073	19,031	4,951	10,761	6,694	18,658	4,636	6,215	4,082	6,086	24,470	2,575	1,068	1,344	169,256
Feb.	39,498	12,740	15,472	2,662	9,460	5,812	17,869	4,437	6,020	8,596	6,474	22,037	2,319	1,765	1,344	157,928
Mar.	39,238	13,704	16,305	3,424	8,447	6,733	17,553	3,168	6,196	8,153	6,889	20,144	1,905	2,429	1,344	156,914
April	40 606	13,655	16,621	4,438	8,038	5,541	17,141	4,942	6,491	6,876	6,615	23,919	2,726	2,155	1,344	162,611
May	39,101	13,357	16,934	6,606	8,797	7,363	17,728	[illegible]	[illegible]	6,137	23,499	2,050	1,784	1,344	165,602
June	37,459	12,997	20,000	6,540	9,125	6,976	18,128	2,453	6,510	7,854	6,349	25,151	1,552	926	1,344	164,815
July	32,882	8,096	17,099	6,401	8,734	6,065	16,381	4,384	6,074	2,221	5,303	19,125	2,859	1,749	1,344	139,291
Aug.	25,589	7,357	19,086	4,267	7 547	6 581	15,256	3,354	6,049	8,645	5,344	21,168	862	2,863	1,344	136,725
Sept.	14,801	9,775	14,320	4,354	7,217	6,164	17,773	4,502	4,728	8,731	5,322	22,786	3,567	2,352	1,344	128,850
Oct.	18,892	9,897	17,988	6,093	7,107	6,004	18,070	4,310	6,193	....	4,663	24,226	3,466	2,669	1,344	.....
Nov.	18 796	9,674	18,223	6,199	7,766	6,431	17,820	4,310	6,193	8,273	4,594	24,226	3,466	2,669	1,344	141,370
Dec.	30,160	10,071	16,448	5,826	7,708	6,581	19,726	4,638	6,639	....	6,865	23,448	3,869	2,056	1,344	.....
1960																
Jan.	40,043	....	15,821	6,127	8,450	6,818	19,424	3,128	....	....	6,699	....	2,448	....	1,309	.....
Feb.	36,435	....	17,371	6,063	....	6,276	....	....	....	....	....	....	2,267	950	1,316	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Can. (b)	Mexico	Peru (b-c)	Belgium	France (a)	Fed. Rep. of Germany	Great Britain	Italy	Netherlands	Norway (b)	Spain	Yugoslovia	Japan (a)	Australia (b)	Rhodesia (b)	Total (d)
1955																	
Total	1,031,018	257,008	61,879	18,943	233,623	123,623	197,024	90,917	77,761	31,202	49,724	26,244	15,175	122,965	113,221	31,248	2,534,457
1956																	
Total	1,062,954	255,601	62,136	10,428	251,906	124,105	204,961	90,784	80,407	32,123	53,170	25,224	15,434	153,821	117,445	32,396	2,630,383
1957																	
Total	1,574,500	247,356	62,354	35,772	259,701	148,455	202,627	85,348	81,179	32,786	52,787	24,279	30,256	152,145	123,587	33,040	2,691,699
1958																	
Sept.	63,705	20,581	5,025	2,640	17,961	12,232	15,635	6,887	5,991	2,533	3,793	2,259	2,820	12,420	11,075	2,912	199,142
Oct.	65,304	21,125	5,344	2,305	17,866	14,176	16,462	6,046	6,442	2,820	4,915	2,313	2,793	14,436	11,045	2,940	203,169
Nov.	65,174	20,274	5,197	2,625	18,696	13,274	16,196	6,158	5,874	2,249	4,669	2,244	3,370	13,501	10,508	2,828	197,481
Dec.	75,503	21,705	5,537	2,686	19,402	13,844	17,090	7,564	6.344	2,332	4,755	2,262	2 684	12,473	10,860	2,856	213,093
Total	892,607	254,661	18,354	34,685	257,540	177,422	210,408	80,494	5,955	2,841	54,423	26,750	34,446	166,883	128,548	39,508	2,464,639
1959																	
Jan.	76,481	21,456	5,476	2,753	19,857	13,903	17,164	5,955	5,617	2,693	4,826	2,028	2,647	11,679	10,541	2,800	211,506
Feb.	71,174	19,709	4,915	1,497	19,838	13,491	15,632	6,123	4,735	2,927	4,928	1,926	2,510	14,105	9,617	2,548	199,495
Mar.	79,918	22,135	5,439	2,363	20,215	14,230	17,325	7,797	6,801	2,921	4,917	2,369	3,014	13,217	10,759	2,800	221 316
Apr.	76,393	21,512	5,225	2,502	20,408	14,087	16,426	6,030	7,039	2,816	3,621	2,239	2,509	15,645	10,472	2,716	216,378
May	77,489	21 147	5,108	2,545	21,181	13,902	16,633	6,595	7,790	2,823	4,798	2,273	2,701	16,171	11,137	2,744	226,057
June	75,544	21 250	4 776	2,524	21,004	14,120	16,185	8,271	7,164	2,899	4,759	2,180	2,083	15,873	10,899	2,716	218,131
July	73,101	21,055	5,038	2,634	20,100	14,262	16,325	6,112	7,303	2,917	4,539	2,057	3,796	15,233	11,189	2,856	215,525
Aug.	69,768	21 588	4,965	2 504	19,472	14,138	16,585	6,507	7,370	2,968	4,646	2,198	3,355	15,308	11,298	2,912	211,964
Sept.	62,202	20,744	4,935	2,537	19,887	11,883	16,366	7,892	6,819	2,928	4,708	2,208	3,013	15,133	10,985	2,800	199,560
Oct.	63,938	21,744	5,084	2,545	20,512	13,228	17,064	5,657	6,403	2,967	3,570	2,245	....	....	10,904	2,800	.....
Nov.	62,346	21,039	5,072	2,608	21,180	12,251	16,689	6,203	6.403	2,967	3.570	2,245	4,990	13,634	10,904	2,800	199,319
Dec.	69,666	21,963	5,330	2,578	21,810	12,807	17,336	7,772	6,519	3,201	3,074	2,331	....	15,141	11,305	2,906	.....
1960																	
Jan.	73.326	22,426	5,278	2,608	21,957	11,298	17,409	7,250	6,781	....	4,743	....	....	15,498	11,023	2,707	.....
Feb.	74,738	21,055	4,627	2,660	....	13,626	....	5,761	....	....	4,299	....	....	....	....	2,664	.....

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrochemic. (d) The above totals omit production in Russia, Czechoslovakia, Poland and in Argentina.

U. K. Stocks of Zinc

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

At start of:	Virgin Zinc 1959	Virgin Zinc 1960	Zinc Conc. 1959	Zinc Conc. 1960
Jan.	34,166	37,162	56,371	45,885
Feb.	34,805	48,337	58,518	41,547
Mar.	36,850	....	57,897	....
Apr.	38,457	....	52,151	....
May	38,643	....	47,936	....
June	37,713	....	41,954	....
July	38,297	....	45,640	....
Aug.	37,427	....	43,948	....
Sept.	40,358	....	42,385	....
Oct.	40,995	....	39,233	....
Nov.	35,994	....	38,948	....
Dec.	35,460	....	47,131	....

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

(Gross Weight)	1959 Dec.	1960 Jan.	1960 Feb.
Zinc ore and concentrates	13,266	5,528	14,230
Zinc conc.*	6,722	3,480	†
Australia	2,701	1,004	...
Canada	2,275	...	...
Peru	11	641	...
Burma	1,020	1,672	...
Other countries	715	163	...
Zinc and zinc alloys	16,201	24,715	17,616
Rhodesia-Nyasaland	200	125	350
Australia	1,403	1,905	1,121
Canada	6,542	7,007	7,398
Belgium	1,749	2,146	1,031
Germany (W.)	201	300	1
Netherlands	425	150	327
Soviet Union	2,436	2,633	2,206
United States	1,300	5,192	1,690
Belgian Congo	220	2,115	1,465
Poland	300	999	150
Other countries	1,425	2,143	1,877

* British Bureau of Non-Ferrous Metal Statistics. The estimated zinc content is not the content of the gross weight as officially reported for any comparabe period.
† Not available.

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1959 Dec.	1960 Jan.	1960 Feb.
Copper unwrought —ingots, blocks, slabs, bars, etc.	6,348	6,067	4,241
Plates, sheets, rods, etc.	5,527	1,583	6,230
Wire (including uninsulated electric wire)	2,674	284	229
Tubes	1,139	1,170	773
Other copper, worked (including pipe fittings)	154	75	154
Total	15,842	9,179	11,627

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Alloyed*	Total	Virgin	Scrap
1956 Total	388,167	251,312	639,479	500,794	138,685
1957 Total	407,326	234,158	641,484	507,493	133,991
1958					
December	37,580	19,118	56,698	45,968	10,730
Total	442,977	225,001	667,978	534,619	133,359
1959					
January	32,678	21,217	52,979	39,815	13,164
February	29,373	19,020	48,293	35,775	12,518
March	27,864	19,567	47,431	36,124	11,307
April	32,742	22,782	55,525	43,015	12,509
May	28,421	19,199	47,620	33,367	14,253
June	35,009	21,103	56,112	44,761	11,351
July	24,714	19,858	44,572	32,034	12,538
August	24,524	16,097	40,621	30,866	9,735
September	35,447	21,920	57,367	45,178	12,189
October	37,221	23,880	61,101	47,345	13,756
November	37,463	23,392	60,855	47,031	13,824
December	36,044	23,202	59,246	44,753	14,493
Total	382,295	250,871	633,166	478,819	154,347
1960					
January	33,888	23,428	57,316	41,741	15,575
February	37,662	23,925	61,587	48,824	12,763

* Includes copper sulphate effective October, 1954.

U. K. Virgin Copper Stocks

(In long tons)

(British Bureau of Non-Ferrous Metal Statistics)

At start of.	1958	1959	1960
Jan.	91,477	64,184	55,005
Feb.	82,483	65,941	61,008
Mar.	89,147	65,875	55,979
Apr.	94,330	72,946	....
May	88,582	72,318	....
June	88,913	78,505	....
July	81,851	80,477	....
Aug.	84,756	81,986	....
Sept.	89,899	89,483	....
Oct.	85,092	77,803	....
Nov.	74,696	64,602	....
Dec.	69,023	60,936	....

U. K. Refined Lead Stocks

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)

At start of.	1958	1959	1960
Jan.	51,296	45,444	48,035
Feb.	49,134	48,102	44,290
Mar.	47,738	40,535	42,043
Apr.	40,547	53,289	....
May	37,509	62,286	....
June	34,608	63,135	....
July	40,518	57,810	....
Aug.	37,148	67,586	....
Sept.	43,758	66,048	....
Oct.	48,856	63,121	....
Nov.	40,216	56,697	....
Dec.	35,335	46,984	....

Zinc Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	1959 Nov.	1959 Dec.	1960 Jan.
IMPORTS			
U. S. (s.t.)	11,045	10,736	8,955
Canada (s.t.)	20	...	...
Denmark	792	635	...
France	496	1,122	714
Germany, W.*	10,958	...	...
Italy	975	...	...
Netherlands	886	569	...
Sweden	2,775	5,022	...
Switzerland*	1,749	1,632	...
U. K. (l.t.)	14,707	16,201	24,715
India† (l.t.)	4,176	2,878	...
EXPORTS			
U. S. (s.t.)	2,846	2,338	5,608
Canada (s.t.)	17,902	14,637	14,874
Belgium	9,563	...	...
Denmark	103	185	...
France	676	647	519
Germany, W.*	1,266	...	...
Italy	1,230	...	...
Netherlands	1,476	1,850	..
Norway	2,755	...	...
Switzerland*	528	498	...
U. K.‡ (l.t.)	642	540	549
Northern Rhodesia† (l. t.)	3,022	2,295	2,510
Australia (l.t.	3,096	1,538	2,252
Belgian Congo	3,536	...	...

* Includes scrap.
‡ Includes manufactures.
† British Bureau of Non-Ferrous Metal Statistics.

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore: Imports	Production*	Stock at end of period*	Tin Metal: Imports	Production*	Consumption	Exports & Re-exports	Stock at end of period
1957 Total	39,272	1,028	....	9,834	34,175	20,365	7,362	71,931
1958 Total	27,419	1,090	....	13,195	32,551	20,413	20,398	19,054
1959								
March	1,545	100	1,595	....	1,572	1,773	2,658	13,264
April	1,743	103	1,798	....	1,636	1,745	3,326	10,685
May	1,493	92	1,575	28	1,808	1,686	2,421	9,445
June	1,323	129	920	25	2,267	1,987	2,919	9,638
July	2,971	112	2,043	47	2,735	1,682	2,639	11,255
August	1,970	58	1,704	21	1,908	1,224	2,956	10,752
September	2,990	115	2 132	33	2,229	2,093	3,742	10,624
October	2,259	108	1,851	24	3.101	1,915	1,986	10,383
November	3,936	90	3,317	25	2,513	1,861	1,997	10,545
December	2.161	117	2,941	15	2,858	1,997	1,513	11,523
Total	25,812	1,252	....	353	27,229	21,396	21,358	10,884
1960								
January	1,490	....	1,845	9	2,377	1,878	1,329	.....

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Primary Copper)

(In Tons)

	1957	1958	1959	1960
Jan.	25,469	32,868	24,664	36,404
Feb.	21,861	28,668	28,016	...
Mar.	27,663	29,239	32,427	...
Apr.	27,398	30,635	32,130	...
May	29,086	32,471	32,622	...
June	24,093	32,418	36,979	...
July	27,195	31,131	36,067	...
Aug.	26,943	30,867	35,045	...
Sept.	24,633	27,546	35,740	...
Oct.	30,312	22,572	35,980	...
Nov.	27,331	20,368	35,271	...
Dec.	31,604	19,033	34,416	...
Year	323,588	346,816	399,362	

Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets)

(In Tons)

	1956	1957	1958	1959
Jan.	15,981	20,582	26,883	10,620
Feb.	11,041	16,272	16,816	10,304
Mar.	12,276	14,270	18,662	11,025
Apr.	14,476	16,417	23,261	17,079
May	12,851	19,048	19,358	21,739
June	10,985	10,826	20,831	21,310
July	13,599	18,621	21,703	13,650
Aug.	14,710	21,980	15,881	15,155
Sept.	17,268	14,314	15,373	28,684
Oct.	13,896	13,110	20,341	....
Nov.	19,130	16,622	14,391	....
Dec.	18,630	16,282	11,138	....
Year	174,843	198,794	224,638	....

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*

(In Tons)

	1956	1957	1958	1959
Jan.	16,002	14,032	17,117	17,118
Feb.	14,344	15,170	14,908	15,923
Mar.	16,857	16,940	15,421	17,389
Apr.	11,573	14,275	15,644	16,237
May	15,446	14,591	15,131	16,813
June	18,145	16,431	15,645	14,968
July	15,841	14,377	14,076	15,111
Aug.	16,104	14,679	12,260	14,104
Sept.	15,760	15,869	15,401	12,420
Oct.	16,725	14,151	14,564	13,958
Nov.	14,865	15,879	16,680	....
Dec.	16,056	15,296	18,248	....
Year	188,971	171,690	185,095	....

* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)

(In Tons)

	1956	1957	1958	1959
Jan.	4,888	8,946	4,752	5,034
Feb.	3,856	6,633	1,553	6,377
Mar.	4,007	7,044	9,497	11,831
Apr.	7,636	7,314	7,450	7,836
May	7,214	9,676	7,764	12,230
June	6,632	7,210	4,036	15,610
July	9,696	4,682	12,629	3,478
Aug.	4,713	6,416	7,232	4,023
Sept.	9,908	8,467	5,125	3,895
Oct.	9,072	7,761	10,320	4,885
Nov.	9,227	6,175	10,641	....
Dec.	2,734	4,217	11,352	....
Year	79,633	84,541	92,351	....

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)

(In Tons)

	1956	1957	1958	1959
Jan.	21,696	20,340	21,801	21,456
Feb.	20,356	19,808	19,743	19,709
Mar.	22,010	21,941	22,314	22,135
Apr.	21,339	20,504	20,989	21,512
May	21,790	20,564	21,269	21,147
June	20,780	19,928	20,353	21,250
July	21,691	20,061	20,873	21,055
Aug.	21,354	20,305	21,152	21,588
Sept.	20,691	20,247	20,530	20,744
Oct.	21,412	20,892	21,125	21,744
Nov.	20,470	20,933	20,273	....
Dec.	22,012	21,823	21,705	....
Year	255,607	247,351	252,157	....

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)

	1956	1957	1958	1959
Jan.	15,550	19,304	17,349	13,565
Feb.	11,757	16,618	8,376	12,675
Mar.	8,822	14,923	19,636	14,617
Apr.	14,317	17,131	16,346	12,789
May	11,357	16,680	15,121	11,049
June	15,296	16,157	7,776	20,298
July	15,499	12,912	27,394	23,122
Aug.	13,070	20,520	15,906	18,464
Sept.	19,732	17,671	8,670	14,367
Oct.	20,792	16,735	22,810	12,518
Nov.	21,411	17,225	17,978	....
Dec.	16,125	16,131	18,344	....
Year	183,728	202,007	195,707	....

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)

(Fine Ounces)

	1957	1958	1959
Jan.	253,940	634,715	185,367
Feb.	380,463	208,149	329,742
Mar.	521,849	350,827	425,973
Apr.	431,646	284,971	989,593
May	523,228	376,082	564,017
June	468,559	438,253	871,570
July	844,545	529,770	728,598
Aug.	811,530	279,511	688,042
Sept.	861,857	583,570	763,017
Oct.	432,000	323,475	767,939
Nov.	263,273	217,892	.....
Dec.	186,569	871,573	.....
Year	5,979,459	5,098,788	.....

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)

	1957	1958	1959
Jan.	2,158,631	2,529,583	3,094,440
Feb.	2,051,679	2,294,655	2,264,903
Mar.	2,346,316	2,448,698	2,782,307
Apr.	2,225,638	2,558,958	2,691,503
May	2,111,185	2,650,665	2,499,149
June	2,208,584	2,527,632	2,676,937
July	2,383,390	2,385,687	2,867,957
Aug.	2,592,468	2,884,154	2,519,033
Sept.	2,382,121	2,856,304	2,446,846
Oct.	2,817,358	2,390,027	3,072,219
Nov.	2,566,519	2,643,790	.....
Dec.	2,537,984	2,917,528	.....
Year	28,361,873	31,087,681	.....

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)

	1957	1958	1959	1960
Jan.	16,609	16,710	8,047	17,399
Feb.	15,027	15,896	12,616	...
Mar.	16,733	15,853	14,922	...
Apr.	15,347	15,163	15,493	...
May	16,225	15,231	16,622	...
June	15,447	14,603	16,599	...
July	15,878	12,851	16,199	...
Aug.	16,756	12,597	16,784	...
Sept.	15,604	11,786	16,205	...
Oct.	15,628	3,682	17,212	...
Nov.	14,587	3,178	16,904	...
Dec.	15,096	3,298	18,738	...
Year	188,962	140,842	186,341	

Canadian Copper Exports
(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	1959	1960	
	Dec.	Jan.	Feb.
Ore, matte, regulus, etc. (content)	3,693	6,745	3,944
United States	1,480	4,136	1,901
Belgium	...	63	...
Germany (W.)	46	76	140
Norway	2,011	2,288	1,461
United Kingdom	156	182	51
Japan	...	...	391
Ingots, bars, billets, anodes	23,872	29,046	22,295
United States	16,117	15,634	11,038
Belgium	...	280	...
France	504	2,576	1,120
Germany (W.)	588	920	452
Netherlands	168	504	...
Portugal	...	56	...
Sweden	...	112	...
United Kingdom	5,881	8,477	9,319
India	612	487	365
Other countries	2	...	1
Total Exports:			
Crude & refined	27,565	35,791	26,239
Old and scrap	997	578	736
Rods, strips, sheet & tubing	2,730	1,976	1,549

Canadian Zinc Exports
(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	1959	1960	
	Dec.	Jan.	Feb.
Ore (zinc content)	11,043	18,445	12,955
United States	10,483	11,557	12,955
Belgium	...	607	...
Germany (W.)	..	310	...
Norway	...	4,499	...
United Kingdom	560	1,472	...
Slab zinc	14,637	14,874	18,106
United States	6,656	5,700	6,661
Chile	...	...	110
United Kingdom	7,539	9,096	10,721
Korea	332	...	250
Hong Kong	...	56	...
Philippines	...	22	...
India	...	..	364
Other countries	110	...	...
Total Exports:			
Ore and slabs	25,680	33,319	31,061
Zinc scrap, dross, ashes	1,599	134	221
United States	166	76	182
Belgium	1,390	58	...
Germany (W.)	43	...	...
Japan	...	...	39

French Copper Imports
(A. B. M. S.)

(In metric tons)

	1959	1960	
	Dec.	Jan.	Feb.
Crude copper for refining (blister, black and cement)	813	...	813
Belgian Congo	813	...	813
Refined	10,580	12,276	16,271
United States	360	876	2,036
Canada	1,473	762	2,032
Chile	51	375	375
Belgium	4,575	3,701	5,781
Germany (W.)	51	53	53
Norway	152	228	76
Sweden	...	5	58
Belgian Congo	2,218	4,110	2,595
Rhodesia-Nyasaland	1,700	2,171	3,265

Canadian Lead Exports
(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	1959	1960	
	Dec.	Jan.	Feb.
Ore (lead content)	1,684	8,356	5,686
United States	1,684	5,030	3,193
Belgium	...	1,505	...
Germany (W.)	..	1,821	2,493
Refined lead	10,218	5,549	6,692
United States	4,472	1,291	2,598
United Kingdom	5,691	4,258	3,892
Japan	...	...	55
Taiwan	...	...	143
Other countries	55	...	4
Total Exports:			
Ore and refined	11,902	13,905	12,378
Lead scrap	620	377	426

Copper Imports and Exports By Principal Countries
(A.B.M.S.)

Reported in ingots, slabs, etc., metric tons except where otherwise noted.

	1959		1960
	Nov.	Dec.	Jan.
IMPORTS			
U. S. (blist., s.t.)	20,417	34,528	21,507
(ore, etc., s.t.)	3,381	5,226	7,246
(ref., s.t.)	43,713	40,200	34,120
Belgium*	19,067	...	...
Denmark	...	634	...
France (crude)	...	813	...
(refined)	7,610	10,580	12,276
Italy	12,516	...	...
Germany, W.	30,232	...	...
Netherlands	1,119	1,949	...
Norway	286	...	...
Sweden	4,881	6,905	...
Switzerland	1,723	1,952	...
U. K. (l.t.)	33,957	35,638	44,384
India (blister/-ref., l.t.)†	5,973	4,651	3,257
EXPORTS			
U. S. (ore and unref., s.t.)	231	95	53
(ref., s.t.)	2,309	5,146	11,337
Canada (ref., s.t.)	27,649	23,872	29,046
Belgium*	15,757	...	...
Finland‡	436	1,009	...
Germany, W.	9,166	...	...
Norway	4,751	...	...
Sweden	2,656	528	...
U. K. (l.t.)	5,808	6,348	6,067
Turkey*	2,000	...	...
Belg. Congo††	25,157	...	...
N. Rhodesia (blister & ref., l.t.)†	41,701	44,531	59,719

* Includes alloys.
† British Bureau of Non-Ferrous Metal Statistics.
‡ Includes old.
†† Copper wire bars and ingot bars 99% and copper ingots 97%.

Canada's Nickel Exports
(Dominion Bureau of Statistics)

(Refined, in oxides, matte, etc.)
(In Tons)

	1957	1958	1959
January	14,260	14,233	6,757
February	9,974	12,157	7,976
March	14,958	12,316	14,006
April	18,671	20,962	14,213
May	18,351	20,574	16,142
June	14,539	16,144	15,901
July	14,181	14,055	11,985
August	14,966	13,012	13,664
September	14,160	14,371	19,143
October	13,370	8,335	.....
November	16,620	3,001	.....
December	14,606	5,060	.....
Year	178,656	154,220	.....

French Zinc Imports
(A. B. M. S.)

(In metric tons)

	1959	1960	
	Dec.	Jan.	Feb.
Ore (gross weight)	22,167	14,747	37,279
Peru	...	250	685
Belgium	...	23	1,287
Greece	...	5,270	821
Italy	2,131	1,511	5,827
Norway	...	528	923
Spain	...	1,057	11,349
Yugoslavia	944	...	...
Algeria	6,128	3,000	10,543
Morocco	10,116	2,946	1,144
Tunisia	...	...	4,700
Belgian Congo	2,848	...	...
Burma	...	162	...
Slabs, bars, blocks, etc.	1,122	714	1,373
Belgium	600	400	1,322
Italy	102	102	51
Netherlands	240	...	...
Algeria	18	9	...
Rhodesia & Nyasaland	162	203	...

French Metal Exports
(A. B. M. S.)

(In metric tons)

	1959	1960	
	Dec.	Jan.	Feb.
LEAD			
Ore (gross weight)	215	1,622	3,333
Pig lead	746	674	767
United States	275	...	...
Switzerland	310	510	760
Egypt	150	149	...
Other countries	11	15	7
Antimonial lead	66	63	140
COPPER			
Crude copper for refining (blister, black and cement)	858	1,281	1,280
ZINC			
Slabs, bars, blocks, etc.	647	519	564

U. K. Copper Imports
(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1959	1960	
	Dec.	Jan.	Feb.
(Gross Weight)			
Copper and copper alloys	35,638	44,384	40,076
U. of S. Africa	700	1,050	175
Rhodesia-Nyasaland	19,290	28,439	16,081
Canada	5,613	6,081	9,264
Belgium	279	252	181
Germany (W.)	37	22	33
Norway	250	252	51
Sweden	2	...	..
United States	292	952	988
Chile	7,746	6,570	12,854
Peru	100	...	175
Belgian Congo	749	500	...
Other countries	580	266	274
Of which:			
Electrolytic	22,932	34,204	25,933
Other refined	4,625	3,701	6,024
Blister or Wrought	7,612	6,334	7,775
Wrought and alloys	469	145	324
Total	35,638	44,384	40,076

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL
(Bureau of Census — Thousands of Pounds)

	Aluminum	Copper	Magnesium	Zinc	Lead Die
1954 Total	607,764	834,557	25,572	474,741	18,396
1955 Total	833,058	1,011,748	27,892	781,254	21,045
1956 Total	801,136	966,473	36,168	88,069	20,734
1957 Total	751,856	875,389	30,322	663,330	23,791
1958					
October	55,699	74,012	2,627	45,045	1,708
November	55,793	62,476	2,615	48,431	1,409
December	59,487	67,905	2,612	55,600	1,497
Total	596,816	739,915	27,228	508,297	18,920
1959					
January	62,927	66,874	2,151	53,347	1,571
February	62,486	69,589	2,162	48,779	1,285
March	73,351	78,641	2,129	57,600	1,765
April	72,976	82,799	2,455	57,325	1,862
May	68,268	78,413	2,370	60,656	2,025
June	66,471	79,730	2,484	56,128	2,007
July	56,911	67,073	2,265	46,756	1,858
August	55,904	68,979	2,243	46,566	1,898
September	66,193	76,045	2,263	58,144	2,218
October	67,499	79,832	2,436	59,214	2,068
November	54,557	70,674	2,023	46,270	1,755
December	64,939	73,558	2,163	60,652	1,346
Total	790,520	892,027	27,144	651,437	21,658
1960					
January	68,496	73,971	2,163	61,399	3,579

Copper Castings Shipments

BY TYPE OF CASTING
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954 Total	834,557	751,804	48,849	6,480	27,394
1955 Total	1,011,748	907,852	63,041	8,541	31,408
1956 Total	966,113	866,404	57,522	10,023	32,134
1957 Total	875,389	789,819	44,746	10,776	30,048
1958					
July	51,124	46,636	2,351	792	1,345
August	57,590	52,981	2,425	682	1,702
September	64,447	58,435	2,888	876	2,248
October	74,012	67,564	3,239	790	2,419
November	62,746	57,386	2,604	810	1,946
December	67,905	61,119	3,535	1,059	2,192
Total	739,985	667,255	36,529	10,201	22,681
1959					
January	66,874	59,856	3,572	1,216	2,230
February	66,589	62,593	3,557	1,176	2,263
March	78,641	69,472	4,333	1,361	3,475
April	82,799	73,567	4,640	1,328	3,264
May	78,413	69,351	4,363	1,291	3,408
June	79,730	70,836	4,421	1,175	3,298
July	69,073	61,650	3,869	946	2,608
August	68,979	60,346	4,410	993	3,230
September	76,045	66,517	4,810	1,138	3,580
October	79,832	69,583	5,172	1,169	3,908
November	70,674	61,490	4,893	1,160	3,131
December	73,558	64,579	4,337	1,130	3,512
Total	891,216	790,290	52,377	14,083	36,907
1960					
January	73,971	65,742	3,915	1,371	3,943

Nickel Averages

Electro, cathode sheets, 99.00%, f.o.b. refinery, duty included
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	74.00	74.00	74.00	74.00
Feb.	74.00	74.00	74.00	74.00
Mar.	74.00	74.00	74.00	74.00
Apr.	74.00	74.00	74.00	...
May	74.00	74.00	74.00	...
June	74.00	74.00	74.00	..
July	74.00	74.00	74.00	...
Aug.	74.00	74.00	74.00	...
Sept.	74.00	74.00	74.00	...
Oct.	74.00	74.00	74.00	...
Nov.	74.00	74.00	74.00	...
Dec.	74.00	74.00	74.00	...
Aver.	**74.00**	**74.00**	**74.00**	...

Platinum Averages

N. Y. MONTHLY QUOTATIONS
(Dollars per Troy Ounce)

	1957	1958	1959	1960
Jan.	101.92	77.85	52.57	80.00
Feb.	98.59	74.82	59.25	83.29
Mar.	93.50	72.096	77.10	83.00
Apr.	93.45	70.72	77.18	...
May	92.865	67.34	77.50	..
June	92.02	66.18	77.50	...
July	90.265	64.35	78.00	...
Aug.	84.426	60.94	78.00	...
Sept.	84.00	59.50	78.00	...
Oct.	84.00	57.327	78.00	...
Nov.	83.80	56.41	78.44	...
Dec.	78.70	53.154	78.50	...
Aver.	**89.79**	**65.07**	**74.17**	...

Spot Straits Tin

(Straits, Open Market, N. Y.)
Monthly Average Prices

	1957	1958	1959	1960
Jan.	101.511	92.94	99.411	99.863
Feb.	101.132	93.915	102.785	101.178
Mar.	99.643	94.452	103.042	100.228
Apr.	99.304	93.988	102.505	...
May	93.347	94.512	103.125	...
June	98.05	94.708	104.25	...
July	96.52	94.898	102.337	...
Aug.	94.261	94.988	102.333	...
Sept.	93.406	94.101	102.44	...
Oct.	91.838	96.523	102.238	...
Nov.	89.236	99.118	101.021	...
Dec.	92.35	98.989	99.176	...
Aver.	**96.301**	**95.177**	**102.055**	..

Prompt Tin Prices

(Straits, Open Market, N. Y.)
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	101.347	92.653	99.351	99.863
Feb.	100.257	93.763	102.708	100.987
Mar.	99.476	94.363	103.042	100.098
Apr.	99.286	92.988	102.505	...
May	98.335	94.512	103.107	...
June	98.025	94.619	104.142	...
July	96.44	94.892	102.337	...
Aug.	94.159	94.976	102.345	...
Sept.	93.313	94.054	102.435	...
Oct.	91.848	96.455	102.238	...
Nov.	89.236	98.985	100.972	...
Dec.	92.34	98.96	99.176	...
Aver.	**93.672**	**95.069**	**102.03**	...

Quicksilver Averages

N. Y. Monthly Averages
Virgin, Dollars per 76-lb Flask

	1957	1958	1959	1960
Jan.	256.00	224.35	219.50	211.30
Feb.	256.00	229.39	219.50	212.68
Mar.	256.00	232.096	223.57	214.00
Apr.	256.00	233.06	239.52	...
May	256.00	229.48	245.86	...
June	256.00	229.00	241.64	...
July	256.00	230.25	236.74	...
Aug.	252.20	240.27	232.524	...
Sept.	248.58	241.12	225.429	...
Oct.	234.48	235.94	224.548	...
Nov.	228.33	230.05	217.944	...
Dec.	226.50	223.54	215.05	...
Aver.	**248.51**	**230.96**	**228.49**	...

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	—Sold or Used— Short tons	Value f. o. b. plant	Stocks end of month short tons
1958					
December	138,545	152,201	145,125	70,946,494	145,721
Total	....	1,565,556	1,595,067	.....	.....
1959					
January	146,086	156,700	127,678	$62,375,824	175,108
February	175,108	142,116	133,397	65,668,578	183,827
March	183,827	157,189	181,839	82,304,609	159,177
April	159,177	155,213	182,930	90,070,280	131,460
May	131,460	163,857	182,607	89,672,327	112,710
June	112,710	167,323	191,421	93,955,552	88,612
July	88,612	179,194	187,387	91,635,864	80,419
August	80,419	172,816	159,206	77,711,678	94,029
September	94,029	168,206	153,170	74,809,052	109,065
October	109,065	173,742	151,683	73,293,070	131,124
November	131,124	153,665	152,024	74,247,828	132,765
December	132,765	162,996	184,123	89,712,146	111,638
Total	....	1,953,017	1,987,465	.....	.....
1960					
January	111,638	164,033	148,129	$73,424,794	127,352

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS

(Bureau of Census — Thousands of Pounds)

	Total	Sheet, Plate, Foil, Rod & Bar	Wire & Cable	Extruded Shapes & Tubing	Powder & Paste
1955 Total	2,805,500	1,542,368	365,391	812,311	35,854
1956 Total	2,870,101	1,577,601	398,602	782,398	28,017
1957 Total	2,677,423	1,396,502	399,040	789,430	28,187
1958					
November	216,249	121,190	17,771	71,666	1,723
December	235,377	130,474	26,253	72,979	1,806
Total	2,624,911	1,441,385	285,355	821,249	25,742
1959					
January	235,463	132,361	26,480	70,309	2,246
February	230,733	131,564	21,740	71,364	2,028
March	271,642	161,285	21,940	81,276	2,578
April	293,554	166,942	25,468	93,475	3,178
May	320,786	184,664	28,532	99,308	3,641
June	341,389	195,476	30,156	107,038	3,901
July	373,060	211,850	39,902	111,661	4,708
August	247,833	126,512	29,411	85,380	2,537
September	262,749	140,313	25,843	89,986	2,419
October	287,081	154,669	27,614	97,478	2,697
November	247,260	136,516	20,528	83,594	2,304
December	268,155	152,007	24,210	84,504	2,606
Total	3,397,705	1,894,159	321,824	1,075,373	34,843
1960					
January	250,116	141,060	22,475	78,674	3,370
February	256,017	147,026	22,626	79,268	2,435

Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

(Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1954 Total	609,066	155,738	213,968	232,726	6,800
1955 Total	833,058	171,757	298,115	354,804	8,282
1956 Total	801,036	171,763	245,421	376,108	7,736
1957 Total	751,656	144,121	232,326	369,086	...
1958					
November	55,793	10,539	16,942	28,264	...
December	59,487	10,874	18,970	29,579	...
Total	596,790	117,421	186,949	292,599	...
1959					
January	62,927	10,907	20,606	21,349	...
February	62,846	10,627	21,127	31,021	...
March	73,351	12,412	26,964	33,949	...
April	72,976	12,700	26,153	33,992	...
May	68,268	11,979	25,283	30,877	...
June	66,471	12,306	24,927	29,092	...
July	56,911	11,581	20,410	24,786	...
August	55,904	11,130	17,824	26,818	...
September	66,193	12,309	21,506	32,239	...
October	67,499	12,958	21,781	32,640	...
November	54,557	10,813	16,326	27,303	...
December	64,939	12,409	19,902	32,523	...
Total	772,212	142,131	262,179	346,589	...
1960					
January	68,496	11,269	22,368	34,772	...

Virgin Aluminum

Ingot (30 lb.) 99½% Plus, Delivered

Monthly Average Prices

(Cents Per Pound)

	1957	1958	1959	1960
Jan.	27.10	28.10	26.80	28.10
Feb.	27.10	28.10	26.80	28.10
Mar.	27.10	28.10	26.80	28.10
Apr.	27.10	26.10	26.80	....
May	27.10	26.10	26.80	....
June	27.10	26.10	26.80	....
July	27.10	26.10	26.80	....
Aug.	28.10	26.77	26.80	....
Sept.	28.10	26.80	26.80	....
Oct.	28.10	26.80	26.80	....
Nov.	28.10	26.80	26.80	....
Dec.	28.10	26.80	27.361	....
Aver.	27.517	26.889	26.847	....

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1957	1958	1959	1960
Jan.	2,130	1,271	1,271	1,535
Feb.	2,522	1,280	1,691	1,691
Mar.	2,388	1,398	1,717	....
Apr.	2,511	1,479	2,089	....
May	2,230	1,443	1,644	....
June	1,881	1,709	1,946	....
July	1,428	1,227	1,681	....
Aug.	1,540	1,823	1,823	....
Sept.	1,501	1,807	1,807	....
Oct.	1,453	1,983	2,220	....
Nov.	1,230	1,662	1,320	....
Dec.	1,102	1,622	1,675	....
Total	21,915	18,702	20,884	....

Cadmium Averages

(Cents Per Pound)

N. Y. Monthly Averages

Cents per lb. in ton lots

	1957	1958	1959	1960
Jan.	170.00	155.00	145.00	148.50
Feb.	170.00	155.00	145.00	150.00
Mar.	170.00	155.00	145.00	150.00
Apr.	170.00	155.00	120.00	....
May	170.00	155.00	120.00	....
June	170.00	155.00	120.00	....
July	170.00	155.00	120.00	....
Aug.	170.00	155.00	120.00	....
Sept.	170.00	152.60	120.00	....
Oct.	170.00	145.00	*140.00	....
Nov.	170.00	145.00	140.00	....
Dec.	166.40	145.00	140.00	....
Aver.	169.70	152.30	132.00	....

* As of Oct. 1, 1959, for lots of up to one ton.

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies OPEN HEARTH Net tons	% of capacity	BESSEMER Net tons	% of capacity	ELECTRIC Net tons	% of capacity	TOTAL Net tons	% of capacity	Calculated weekly production, all companies (net tons)
1954 Total	80,327,494	73.6	2,548,104	53.2	5,436,054	52.0	88,311,652	71.0	1,693,741
1956 Total	102,840,585	91.6	3,227,997	67.4	9,147,567	81.2	115,216,149	89.8	2,203,828
1957 Total	101,657,776	87.0	2,475,138	54.9	8,582,082	71.3	112,714,996	84.5	2,161,776
1958									
November	7,572,555	75.3	145,867	44.1	850,896	71.9	8,569,318	74.1	1,997,510
December	7,764,000	74.7	117,000	34.2	832,000	68.1	8,793,000	72.9	1,971,000
Total	75,888,392	62.0	1,396,348	34.7	7,972,623	55.4	85,257,363	69.6	1,635,162
1959									
January	8,280,985	77.1	120,005	39.5	729,675	63.7	9,317,385	74.3	2,103,247
February	8,540,000	88.0	129,000	47.0	757,000	73.1	9,603,000	84.8	2,401,000
March	10,216,474	95.1	184,892	60.9	929,784	81.1	11,567,745	92.3	2,611,229
April	9,884,332	95.0	196,000	66.2	964,850	87.0	11,281,920	93.0	2,629,818
May	10,117,968	94.2	200,887	66.1	1,024,401	89.4	11,600,581	92.5	2,618,441
June	9,521,063	91.6	185,794	63.2	941,056	84.8	10,907,634	89.9	2,542,572
July	4,540,182	42.2	66,433	21.9	526,025	45.9	5,227,129	41.7	1,182,608
August	1,171,342	10.9	.....	...	267,935	23.4	1,439,277	11.5	324,893
September	1,249,398	12.0	.....	...	285,619	25.8	1,535,017	12.7	358,649
October	1,385,490	12.9	.....	...	319,043	27.8	1,704,533	13.6	384,770
November	6,290,659	60.5	92,361	31.4	754,793	68.0	7,267,607	52.9	1,694,081
December	10,468,534	92.4	205,666	67.7	1,033,668	90.2	11,989,319	95.6	2,712,516
Total	81,668,997	64.5	1,380,283	38.6	8,532,514	63.2	93,446,132	63.3	1,792,216
1960									
January	10,510,616	97.7	211,132	73.2	1,046,675	85.6	12,049,404	95.5	2,719,956
February	9,713,527	94.0	216,263	80.2	949,588	83.0	11,126,806	94.3	2,687,634
March	10,106,000	94.0	203,000	70.4	947,000	77.5	11,563,000	91.6	2,610,000

Blast Furnace Output

(American Iron and Steel Institute)

	net tons Pig Iron	Ferro-manganese & Spiegel	Total	% Capacity
1951				
Tl. Yr.	70,487,880	745,381	71,232,761	98.8
1952				
Tl. Yr.	61,838,665	629,926	62,168,591	84.2
1953				
Total	74,987,721	855,038	75,842,759	95.5
1954				
Total	58,119,382	568,735	58,688,117	71.6
1955				
Total	77,114,073	868,758	77,980,831	92.7
1956				
Total	75,301,134	664,341	75,965,475	88.9
1957				
Nov.	5,711,242	63,637	5,779,879	81.0
Dec.	5,212,624	69,175	4,854,444	62.8
Total	78,557,011	782,660	79,339,671	91.4
1958				
Jan.	4,785,269	69,175	4,854,444	62.8
Feb.	4,016,276	47,953	4,064,229	58.2
Mar.	4,418,778	45,175	4,463,953	57.8
April	3,787,907	39,302	3,827,209	51.2
May	4,048,328	25,468	4,073,796	52.7
June	4,396,285	26,463	4,422,748	59.1
July	4,277,515	26,668	4,304,183	55.7
Aug.	4,799,955	31,374	4,831,329	62.1
Sept.	5,041,042	31,348	5,072,390	67.8
Oct.	5,835,995	36,963	5,872,958	76.0
Nov.	5,907,888	39,275	5,946,163	79.5
Dec.	6,025,385	47,505	6,072,890	78.6
Total	57,298,644	465,456	57,298,644	63.5
1959				
Jan.	6,260,395	48,572	6,211,823	77.9
Feb.	6,047,398	45,274	6,192,672	85.3
March	7,461,760	48,291	7,510,051	93.4
April	7,338,372	54,234	7,392,606	95.0
May	7,683,759	64,237	7,747,996	96.4
June	7,231,631	58,315	7,289,946	93.7
July	3,550,159	23,391	3,573,550	44.5
Aug.	.....	....	947,779	11.8
Sept.	.....	....	949,103	12.2
Oct.	.....	....	1,017,659	12.7
Nov.	4,199,101	20,172	4,219,273	54.2
Dec.	7,638,359	65,728	7,704,087	95.0
Total	60,322,426	452,313	60,774,738	...
1960				
Jan.	7,753,753	76,344	7,830,097	95.5
Feb.	7,342,469	71,533	7,414,002	...
March	7,713,696	79,715	7,793,411	...

Steel Castings Shipments

(Bureau of Census)

	(Short Tons) Total	For Sale	For Own Use
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953	1,829,277	1,290,016	431,830
1954	1,184,096	880,158	303,938
1955	1,530,694	1,166,706	363,988
1956	1,931,987	1,512,290	416,697
1957			
Total	1,766,191	1,261,301	406,444
1958			
Jan.	120,722	94,717	26,005
Feb.	103,297	79,708	23,589
Mar.	106,233	82,195	24,038
Apr.	91,464	69,121	22,343
May	87,002	66,086	20,916
June	92,681	71,624	21,237
July	68,802	48,618	10,184
Aug.	80,886	59,816	21,070
Sept.	85,277	64,586	20,691
Oct.	95,389	73,367	22,022
Nov.	85,267	65,788	19,479
Dec.	103,800	81,360	22,440
Total	1,114,939	859,125	255,814
1959			
Jan.	105,392	82,693	22,709
Feb.	110,280	86,013	24,267
Mar.	131,317	103,848	27,469
Apr.	134,344	104,890	29,454
May	135,359	105,804	29,555
June	143,624	111,725	31,899
July	106,790	83,541	23,249
Aug.	98,014	79,188	18,826
Sept.	99,731	79,963	19,768
Oct.	105,570	84,850	20,720
Nov.	109,460	86,026	23,434
Dec.	103,800	81,360	23,440
Total	1,023,861	919,181	294,430
1960			
Jan.	122,565	133,346	105,392

Galvanized Sheet Shipments

(American Iron & Steel Institute)

(Net Tons)

	1957	1958	1959	1960
Jan.	235,902	186,649	279,244	323,073
Feb.	205,048	167,627	281,637	289,583
Mar.	206,836	195,885	311,961	
Apr.	198,585	206,368	328,759	
May	206,657	231,318	317,059	
June	239,037	277,180	350,333	
July	167,247	239,883	180,787	
Aug.	186,790	253,263	N.A.	
Sept.	183,952	258,723	N.A.	
Oct.	212,886	290,157	N.A.	
Nov.	190,380	253,909	196,644	
Dec.	159,363	266,472	301,911	
Total	2,392,637	2,828,848	2,772,835	

N.A.—Not available.

SHIPMENTS OF TIN-TERNEPLATE

(American Iron & Steel Institute)

(Net Tons)

	—Hot Dipped— 1959	1960	—Electrolytic— 1959	1960
Jan.	30,304	32,525	417,210	493,828
Feb.	24,602	29,385	442,625	443,619
Mar.	46,705	....	597,408	....
Apr.	54,906	....	689,998	....
May	64,110	....	689,064	....
June	62,965	....	673,819	....
July	36,381	....	244,719	....
Aug.	N.A.	....	N.A.	....
Sept.	N.A.	....	N.A.	....
Oct.	N.A.	....	N.A.	....
Nov.	21,782	....	296,641	....
Dec.	31,487	....	464,080	....
Total	412,123	....	4,858,511	....

N.A.—Not available.

Steel Ingot Operations

(Precentage of Capacity as Reported by American Iron & Steel Institute)

Week Beginning	1957	1958	1959	1960
Jan. 4...	98.4	56.1	76.2	95.3
Jan. 11...	96.4	57.0	73.6	95.7
Jan. 18...	96.6	55.5	74.6	95.4
Jan. 25...	97.6	54.0	72.6	94.2
Feb. 1...	97.1	54.0	76.9	94.3
Feb. 8...	97.7	53.5	83.8	95.7
Feb. 15...	97.8	50.9	83.7	93.8
Feb. 22...	96.0	54.6	88.5	94.4
Feb. 29...	97.1	53.1	90.3	92.8
Mar. 7...	93.8	52.4	92.0	93.1
Mar. 14...	93.5	52.5	92.9	91.5
Mar. 21...	92.4	50.6	92.9	91.1
Mar. 28...	90.6	48.6	93.2	88.7
Apr. 4...	90.3	48.5	93.3	84.8
Apr. 11...	90.4	46.8	93.8	...
Apr. 18...	88.7	47.9	93.5	...
Apr. 25...	87.0	47.8	94.2	...
May 2...	86.7	49.4	92.0	...
May 9...	84.2	52.3	92.9	...
May 16...	86.4	56.4	93.4	...
May 23...	88.0	58.1	93.6	...
May 30...	87.5	62.5	93.7	...
June 6...	86.5	84.0	92.0	...
June 13...	85.2	64.9	92.5	...
June 20...	84.0	61.7	87.8	...
June 27...	78.5	51.0	78.2	...
July 4...	78.7	53.4	79.5	...
July 11...	79.3	54.9	38.7	...
July 18...	79.4	57.3	12.9	...
July 25...	79.4	57.8	12.2	...
Aug. 1...	79.8	58.8	11.2	...
Aug. 8...	80.6	60.5	11.8	...
Aug. 15...	82.1	62.6	11.3	...
Aug. 22...	82.2	63.5	11.7	...
Aug. 29...	81.0	61.7	11.5	...
Sept. 5...	81.9	65.9	11.6	...
Sept. 12...	82.1	65.6	12.6	...
Sept. 19...	82.2	67.3	12.8	...
Sept. 26...	82.6	70.4	12.8	...
Oct. 3...	82.8	71.6	12.8	...
Oct. 10...	80.9	74.2	13.0	...
Oct. 17...	80.2	74.8	13.1	...
Oct. 24...	79.7	75.0	13.1	...
Oct. 31...	78.0	74.5	13.0	...
Nov. 7...	77.7	74.5	45.6	...
Nov. 14...	76.0	74.1	78.9	...
Nov. 21...	72.1	73.7	89.7	...
Nov. 28...	71.5	73.5	93.6	...
Dec. 5...	69.2	73.5	96.5	...
Dec. 12...	67.7	74.5	96.3	...
Dec. 19...	53.7	74.5	94.9	...
Dec. 26...	59.0	73.6	96.3	...

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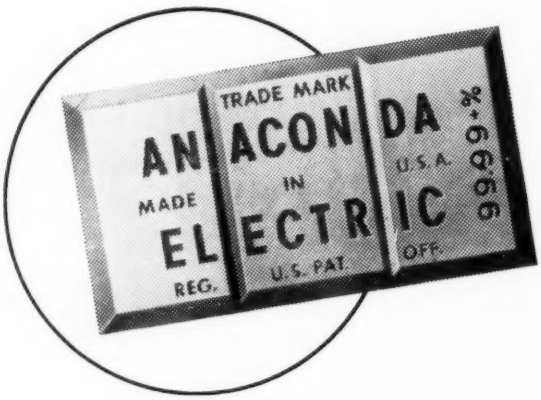

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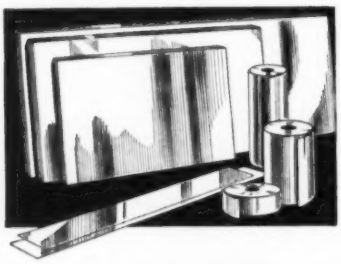

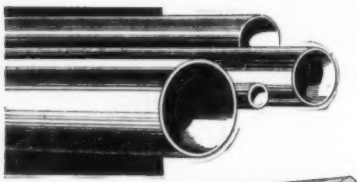

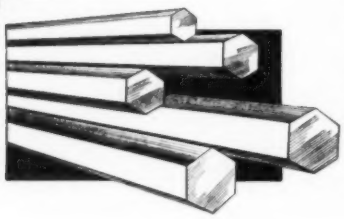

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